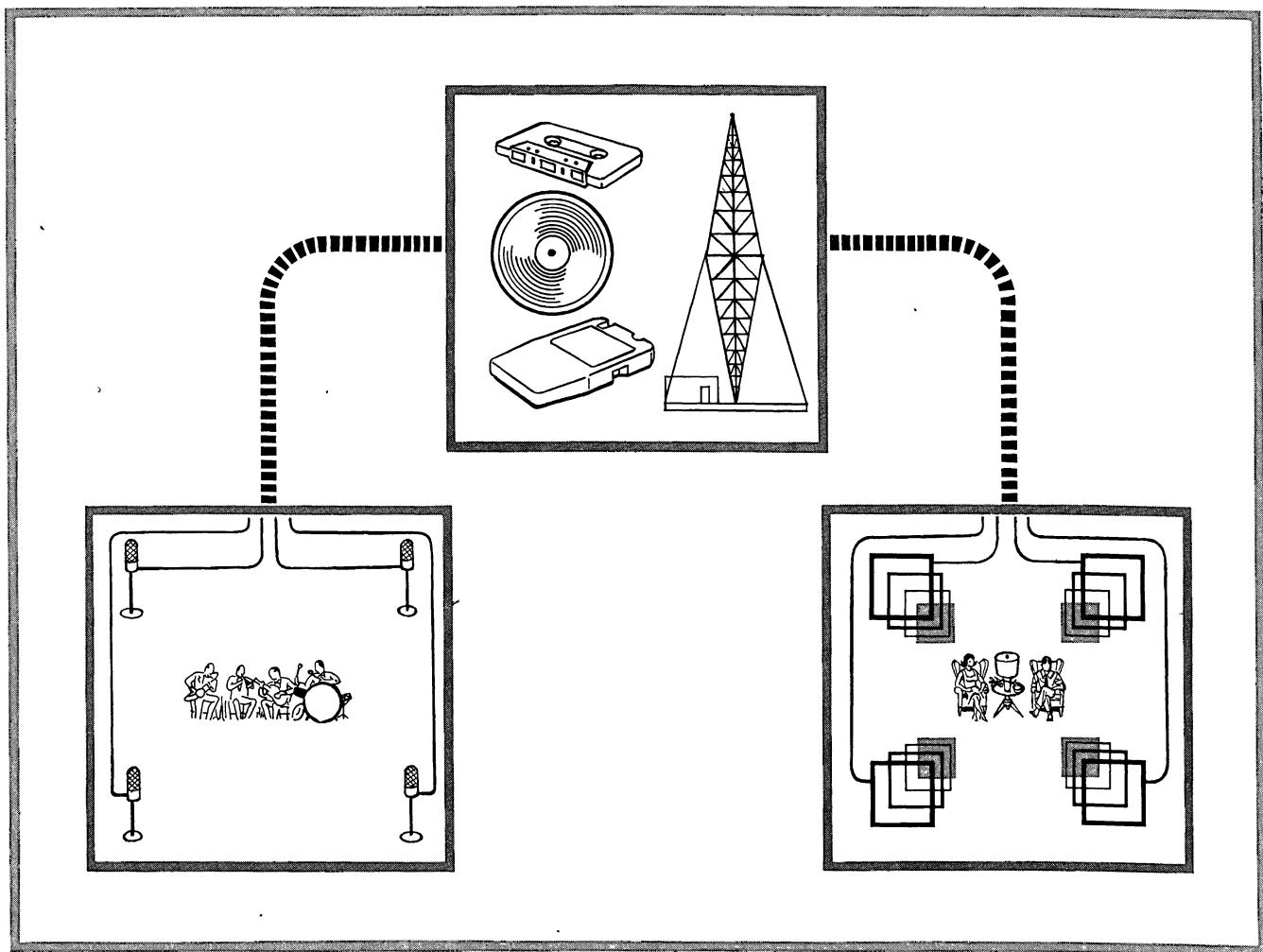




# SERVICE MANUAL



## MODULAR AND CONSOLE AUDIO PRODUCTS

ZENITH RADIO CORPORATION  
PARTS AND SERVICE DIVISION

11000 SEYMORE AVENUE, FRANKLIN PARK, ILLINOIS 60131

# To the Service Technician

## PRODUCT SAFETY SERVICING GUIDELINES FOR ALL AUDIO AMPLIFIERS AND RADIO RECEIVERS

**CAUTION:** No modification of any circuit should be attempted. Service work should be performed only after you are thoroughly familiar with all of the following safety checks and servicing guidelines. To do otherwise increases the risk of potential hazards and injury to the user.

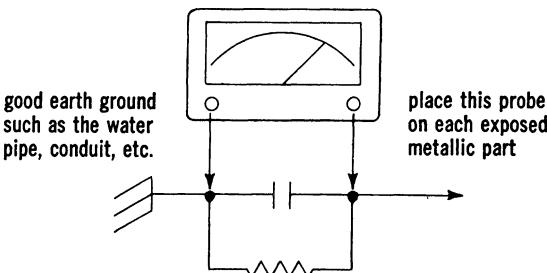
### SAFETY CHECKS

#### SUBJECT: Fire & Shock Hazard

1. Be sure that all components are positioned in such a way to avoid possibility of adjacent components shorts. This is especially important on those chassis which are transported to and from the repair shop.
2. Always replace all protective devices such as insulators and barriers after working on a receiver.
3. Check for frayed insulation on wires including the AC cord. Also check across-the-line components for damage and replace if necessary.
4. All fuses and certain resistors and capacitors which are of the flameproof type (shaded on the schematic diagrams and parts lists) must be replaced with exact Zenith types to prevent potential fire hazard.
5. After re-assembly of the set always perform an AC leakage test on the exposed metallic parts of the cabinet such as the knobs, antenna terminals, etc. to be sure the set is safe to operate without danger of electrical shock.

Do not use a line isolation transformer during this test. Use an AC voltmeter having 5000 ohms per volt or more sensitivity in the following manner: Connect a 1500 ohm 10 watt resistor, (63-10401-76) paralleled by a .15 mfd, AC type capacitor (22-4384) between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination 1500 ohm resistor and .15 mfd. capacitor. Reverse the AC plug on the set and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed .3 volts RMS. This corresponds to 0.2 milliamp AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

### AC VOLTMETER



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### TECHNICAL APPLICATIONS INDEX

Various "HF" series service manuals contain information relating to solid state device theory, operation and circuit applications as introduced into our products. In addition, service procedures are also explained, if required, in the appropriate service manuals. Such information has been included in the following service manuals:

HF 18: Theory - Diodes (Including Zener and SCR), Transistors, (PNP, NPN, Darlington, and JFET). Applications - Chassis 29AT24 (JFET FM-RF, Multiplex, Electronic Touch Switching), Complementary Symmetry, Chassis 11ZT27 (Electronic Filter).

HF 22: Theory - JFET, IGFET, MOSFET, Applications - Dual Gate MOSFET FM-RF, JFET Biplex Detector, Quasi-Complementary Symmetry.

HF 23: Applications - Model C9029/Chassis 15WCA10 Four Channel Decoder.

HF 26: Applications - Chassis 15WDR51 (JFET Meter Circuit, Multiplex IC, Four Channel Decoding).

HF 27: Applications - Model SD2568 Speaker Switching Circuitry.

HF 28: Applications - Model D9013W Allegro Speaker System.

HF 29: Theory - Light Emitting Diodes (LED). Applications - Three Light Tuning (Target Tuning), Multiplex IC.

HF 29S1: Applications - Snap-off Escutcheon and Out Front Chassis Removal, "E" Line Models.

HF 30: Applications - Snap-off Escutcheon and Out Front Chassis Removal, "F" Line Models.

HF 31: Theory and Applications - Chassis 12WGR59 (Ceramic Filters, IF IC, Quadrature Detector, Interstation Muting, PLL Multiplex IC, Audio). General Product Information - Audio Circuitry (including Two on Two Speaker Matrix, Allegro Speaker Systems), "G" Line Disassembly Procedures.

HF 31S2: Applications - Four Channel Sound Reproduction Input Vs. Output, Repairing Push Button Switches, Record Changer and Phono Cartridge Inter Changeability, Chassis 12WGR59 Accessibility.

HF 32: Applications - "H" Line Disassembly Procedures, Part Number Identification, Record Changer and Phono Cartridge Interchangeability, "H" Line Allegro Speaker Systems and Repair Procedures.

HF 33: Theory and Applications - Chassis 3WJR52 (Ceramic Filters, IF IC's for AM and FM, Quadrature Detector, PLL Multiplex IC, Audio). General Product Information - Audio Circuitry (including Output IC), "J" Line Disassembly Procedures.

HF 33S1: Applications - "J" Line Allegro Speaker System Repair Procedures.

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**PRODUCT FEATURES**  
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CABINET			CHASSIS		SPEAKERS			RECORD CHANGER	OTHER FEATURES		
MODEL	COLOR	STYLE NOTE A	MODEL	TYPE	PART NUMBER	IMPED. (In Ohms)	QTY. AND SIZE (In Inches)	PART NUMBER NOTE B	TAPE PROVISION NOTE C	SPEAKER PROVISION NOTE D	MISC. NOTE E
J584W	Walnut	M, LL	3WJR51	AM/FM/FM Stereo/Phono	Note D2	—	—	169-554	TM	A1,A2,A3	DL, H, TIO
J584W1	Walnut	M, LL	3WJR51	AM/FM/FM Stereo/Phono	Note D2	—	—	169-512A	TM	A1,A2,A3	DL, H, TIO
J584W2	Walnut	M, LL	3WJR51Z	AM/FM/FM Stereo/Phono	Note D2	—	—	169-554	TM	A1,A2,A3	DL, H, TIO
J584W3	Walnut	M, LL	3WJR51Z	AM/FM/FM Stereo/Phono	Note D2	—	—	169-512A	TM	A1,A2,A3	DL, H, TIO
J587W	Walnut	M, LL	3WJR52	AM/FM/FM Stereo/Phono/ Tape	Note D2	—	—	169-554	8TK-P 169-544	A1,A2,A3	AUX, DL, H, TO
JR587W	Walnut	M, LL	3WJR52	AM/FM/FM Stereo/Phono/ Tape	Note D2	—	—	169-554	8TK-R/P 169-546	A1,A2,A3	AUX, DL, H, TO
JR588W	Walnut	M, LL	3WJR52	AM/FM/FM Stereo/Phono/ Tape	Note D2	—	—	169-554	CASS - R/P 169-543	A1,A2,A3	AUX, DL, H, TO
J590W	Walnut	M, LL	8WJR57	AM/FM/FM Stereo/Phono/ Tape	Note D2	—	—	169-555	8TK-P 169-510C 169-510E 169-510F 169-510G or 169-510	A1,A2,A3 SPK	AUX, DL, F, H, T, TIO, UNI
JR590W	Walnut	M, LL	8WJR57	AM/FM/FM Stereo/Phono/ Tape	Note D2	—	—	169-555	8TK-R/P 169-507-02	A1,A2,A3 SPK	AUX, DL, F, H, T, TIO, UNI
JR590W1	Walnut	M, LL	8WJR57	AM/FM/FM Stereo/Phono/ Tape	Note D2	—	—	169-555	8TK-R/P 169-507	A1,A2,A3 SPK	AUX, DL, F, H, T, TIO, UNI
JR591W	Walnut	M, LL	8WJR57	AM/FM/FM Stereo/Phono/ Tape	Note D2	—	—	169-555	CASS-R/P 169-539	A1,A2,A3 SPK	AUX, DL, F, H, T, TIO, UNI
J596W	Walnut	M, LL	15WJR29	AM/FM/FM Stereo/Phono/ Tape	Note D2	—	—	169-556 or 169-556-01	8TK-P 169-505B, 169-505A, 169-505G, 169-505E, or 169-505F	A2, A3 SPK	AUX, DL, F, H, T, TIO
JR596W	Walnut	M, LL	15WJR29	AM/FM/FM Stereo/Phono Tape	Note D2	—	—	169-556 or 169-556-01	8TK-R/P 169-506B or 169-506	A2, A3 SPK	AUX, DL, F, H, T, TIO
J635W	Walnut	M	—	Tape	—	—	—	—	8TK-P 169-536-01 or 169-536-01A	—	PL
JR638W	Walnut	M	—	Tape	—	—	—	—	8TK-R/P 169-537-01 or 169-537-01A	—	PL
JR684W	Walnut	M	8WJR56	AM/FM/FM Stereo/Tape	Note D2	—	—	—	8TK-R/P 169-507-02	A1,A2,A3 SPK	AUX, DL, F, H, T, TIO UNI

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CABINET			CHASSIS		SPEAKERS			RECORD CHANGER	OTHER FEATURES		
MODEL	COLOR	STYLE NOTE A	MODEL	TYPE	PART NUMBER	IMPED. (In Ohms)	QTY. AND SIZE (In Inches)	PART NUMBER NOTE B	TAPE PROVISION NOTE C	SPEAKER PROVISION NOTE D	MISC. NOTE E
JR684W1	Walnut	M	8WJR56	AM/FM/FM Stereo/Tape	Note D2	—	—	—	8TK-R/P 169-507	A1,A2,A3 SPK	AUX, DL, F, H, T, TIO, UNI
J900P J900P11 J900P21	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-P 169-544	—	DL, H
J900P31	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-P 169-544	A1,A2,A3, SPK	DL, H
J900P32	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-554-01	8TK-P 169-544	A1,A2,A3 SPK	DL, H
J900P34	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-554-01	8TK-P 169-521G	A1,A2,A3 SPK	DL, H
JR900P	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-R/P 169-545	—	DL, H
JR900P31	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-R/P 169-545	A1,A2,A3 SPK	DL, H
JR900P32	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-541	8TK-R/P 169-545	A1,A2,A3 SPK	DL, H
JR900P33	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-541	8TK-R/P 169-508	A1,A2,A3 SPK	DL, H
JR900P34	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-R/P 169-508	A1,A2,A3 SPK	DL, H
JR900P35	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-541-01	8TK-R/P 169-545	A1,A2,A3 SPK	DL, H
JR900P36	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-541-01	8TK-R/P 169-508	A1,A2,A3 SPK	DL, H
JR901P	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-R/P 169-545	—	DL, H
J902P J902P11	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-P 169-544	—	DL, H, RS
J902P31	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-P 169-544	A1,A2,A3 SPK	DL, H, RS

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CABINET			CHASSIS		SPEAKERS			RECORD CHANGER	OTHER FEATURES		
MODEL	COLOR	STYLE NOTE A	MODEL	TYPE	PART NUMBER	IMPED. (In Ohms)	QTY. AND SIZE (In Inches)	PART NUMBER NOTE B	TAPE PROVISION NOTE C	SPEAKER PROVISION NOTE D	MISC. NOTE E
J902P32	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-554-01	8TK-P 169-544	A1,A2,A3, SPK	DL, H, RS
J902P33	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-554-01	8TK-P 169-521G	A1,A2,A3 SPK	DL, H, RS
JR902P JR902P11	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-R/P 169-545	—	DL, H, RS
JR902P12	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-R/P 169-508	—	DL, H, RS
JR902P31	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-R/P 169-545	A1,A2,A3 SPK	DL, H, RS
JR902P32	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-R/P 169-508	A1,A2,A3 SPK	DL, H, RS
JR902P33	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-554-01	8TK-R/P 169-545	A1,A2,A3 SPK	DL, H, RS
JR902P34	Pecan	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-554-01	8TK-R/P 169-508	A1,A2,A3 SPK	DL, H, RS
J903PN J903PN11	Pine	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-P 169-544	—	DL, H, RS
J903PN31	Pine	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-P 169-544	A1,A2,A3 SPK	DL, H, RS
J903PN32	Pine	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-554-01	8TK-P 169-544	A1,A2,A3 SPK	DL, H, RS
JR903PN JR903PN11	Pine	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-R/P 169-545	—	DL, H, RS
JR903PN12	Pine	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-R/P 169-508	—	DL, H, RS
JR903PN31	Pine	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-R/P 169-545	A1,A2,A3 SPK	DL, H, RS
JR903PN32	Pine	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-557	8TK-R/P 169-508	A1,A2,A3 SPK	DL, H, RS
JR903PN33	Pine	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-1094-01	16 45	2-6x9 2-3½	169-554-01	8TK-R/P 169-545	A1,A2,A3 SPK	DL, H, RS
JR903PN34	Pine	C, LL	1WJR55	AM/FM/FM Stereo/Phono/ Tape	49-1153-02 49-109401	16 45	2-6x9 2-3½	169-554-01	8TK-R/P 169-508	A1,A2,A3 APK	DL, H, RS

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SEE NOTES ON PAGE 6**

CABINET			CHASSIS		SPEAKERS			RECORD CHANGER	OTHER FEATURES		
MODEL	COLOR	STYLE NOTE A	MODEL	TYPE	PART NUMBER	IMPED. (In Ohms)	QTY. AND SIZE (In Inches)	PART NUMBER NOTE B	TAPE PROVISION NOTE C	SPEAKER PROVISION NOTE D	MISC. NOTE E
J915P	Pecan	C, LL	3WJR50 or 3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1261-02 49-1251-02	8 8	2-8 2-3	169-558 or 169-558-01	8TK-P 169-544	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO
J915P11	Pecan	C, LL	3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1261-02 49-1251-02	8 8	2-8 2-3	169-558	8TK-P 169-544	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO
J915P12	Pecan	C, LL	3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1261-02 49-1251-02	8 8	2-8 2-3	169-561	8TK-P 169-544	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO
JR915P	Pecan	C, LL	3WJR50 or 3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1261-02 49-1251-02	8 8	2-8 2-3	169-558 or 169-558-01	8TK-R/P 169-545 or 169-508	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO
JR915P11	Pecan	C, LL	3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1261-02 49-1251-02	8 8	2-8 2-3	169-558 or 169-559	8TK-R/P 169-545 or 169-508	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO
JR915P12	Pecan	C, LL	3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1261-02 49-1251-02	8 8	2-8 2-3	169-561	8TK-R/P 169-545 or 169-508	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO
J916M	Maple	C, LL	3WJR50 or 3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1261-02 49-1251-02	8 8	2-8 2-3	169-558	8TK-P 169-544	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO
J916M11	Maple	C, LL	3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1261-02 49-1251-02	8 8	2-8 2-3	169-558	8TK-P 169-544	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO
J916M12	Maple	C, LL	3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1261-02 49-1251-02	8 8	2-8 2-3	169-561	8TK-P 169-544	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO
JR916M	Maple	C, LL	3WJR50 or 3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1261-02 49-1251-02	8 8	2-8 2-3	169-558	8TK-R/P 169-545 or 169-508	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO
JR916M11	Maple	C, LL	3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1261-02 49-1251-02	8 8	2-8 2-3	169-558	8TK-R/P 169-545 or 169-508	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO
JR916M12	Maple	C, LL	3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1261-02 49-1251-02	8 8	2-8 2-3	169-561	8TK-R/P 169-545 or 169-508	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO
JR919P	Pecan	C, LL	3WJR50 or 3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1261-02 49-1251-02	8 8	2-8 2-3	169-558 or 169-559	8TK-R/P 169-545 or 169-508	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO
JR919P1	Pecan	C, LL	3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1261-02 49-1251-02	8 8	2-8 2-3	169-561	8TK-R/P 169-545 or 169-508	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO
JR920AE	Antique Oak	C, LL	3WJR50 or 3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1217-01 49-1166-01	8 8	2-10 2-3½	169-559	8TK-R/P 169-546	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO
JR920AE1	Antique Oak	C, LL	3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1217-01 49-1166-01	8 8	2-10 2-3½	169-560 or 169-561	8TK-R/P 169-546	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO
JR922M	Maple	C, LL	3WJR50 or 3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1217-01 49-1166-01	8 8	2-10 2-3½	169-559	8TK-R/P 169-546	A1,A2,A3, SPK	A, AUX, DL, H, RS, T, TO

# PRODUCT FEATURES

## SEE NOTES BELOW

CABINET			CHASSIS		SPEAKERS			RECORD CHANGER	OTHER FEATURES		
MODEL	COLOR	STYLE NOTE A	MODEL	TYPE	PART NUMBER	IMPED. (In Ohms)	QTY. AND SIZE (In Inches)	PART NUMBER NOTE B	TAPE PROVISION NOTE C	SPEAKER PROVISION NOTE D	MISC. NOTE E
JR922M1	Maple	C, LL	3WJR50Z	AM/FM/FM Stereo/Phono/ Tape	49-1217-01 49-1166-01	8 8	2-10 2-3½	169-560 or 169-561	8TK-R/P 169-546	A1,A2,A3 SPK	A, AUX, DL, H, RS, T, TO
JR966P	Pecan	C, LL	15WJR29	AM/FM/FM Stereo/Phono/ Tape	49-1271 49-1166	8 8	2-12 2-3½	169-556-01	8TK-R/P 169-506-01A	A2,A3 SPK	A, AUX, DL, F, H, T, TIO
J1000W1	Walnut	M, SP	—	—	49-1277 49-1278	8 8	1-6½ 1-2	—	—	—	A1
J1000W2	Walnut	M, SP	—	—	49-1249 49-1251-01	8 8	1-6½ 1-3	—	—	—	A1
J2000W1	Walnut	M, SP	—	—	49-1261-02 49-1166-01	8 8	1-8 1-3½	—	—	—	A2
J2000W2	Walnut	M, SP	—	—	49-1261-02 49-1166	8 8	1-8 1-3½	—	—	—	A2
J3000W1	Walnut	M, SP	—	—	49-1270 49-1166-01	8 8	1-10 1-3½	—	—	—	A3
J9026W	Walnut	M	—	—	—	—	—	169-556-01	—	—	—
SJ2597P	Pecan	C, 2LL	3WJR50 or 3WJR50Z	AM/FM/FM Stereo/Phono/ Tape/ Color Combo	49-1276 49-1166 49-1234-04	8 8 16	2-10 2-3½ 1-5	169-559	8TK-R/P 169-546	A1,A2,A3 SPK	A, AUX, DL, H, RS, T, TO
SJ2599P	Pecan	C, 2LL	15WJR29	AM/FM/FM Stereo/Phono/ Tape/ Color Combo	49-1275 49-1166 49-1234-02	8 8 16	2-10 2-3½ 1-5	169-556-01	8TK-R/P 169-506-01A	A2, A3 SPK	A, AUX, DL, F, H, T, TIO

### NOTES

#### NOTE A – CABINET STYLE:

C = Console, M = Modular, LL = Lift Lid, 2LL = Two Lift Lids, SP = Speaker System.

#### NOTE B – RECORD CHANGERS

Record Changers having alpha suffixes (ie. 169-511A) denote variations of internal mechanical and/or electrical components (refer to Record Changer Features charts on page 7) but otherwise are interchangeable with other alpha suffix and non-suffix versions.

#### NOTE C – TAPE INPUT AND OUTPUT PROVISIONS:

Factory Installed: 8 TK - Eight Track Cartridge.

Cass = Cassette, P = Play, R = Record.

TM = Top of Set Model for installation with the designated console or modular models:

Model J635W – Cartridge Tape Player.

Model J638W – Cartridge Tape Player/Recorder.

Tape Units having alpha suffixes (ie. 169-510A) denote variations of internal mechanical and/or electrical components (refer to Tape Unit Features charts on pages 8 and 9) but are otherwise interchangeable with other alpha suffix and nonsuffix versions. Units having numeric (ie. 169-506-01) or numeric/alpha (ie. 169-506-01A) suffixes may have a one way interchangeability under some conditions (refer to Product Features charts on pages 2 thru 6).

#### NOTE D – SPEAKER PROVISIONS:

NOTE D1: Models E9012 series, G1000W, G200W, W11, G3000W, W11, G9012W1, G9014W, G9019W, H1000W series, H2000W series

and H3000W series are 8 ohm Allegro Speaker Systems. Allegro Models in the E9014 and E9018 series were 16 ohm systems.

NOTE D2: "J" Line Modular Models may use either J1000W, J2000W, or J3000W series 8 ohm Allegro Speaker Systems (See Speaker Provisions). Use only J2000W or J3000W series systems with Models J596W, JR596W and JR966P.

A1 = Model J1000W Series Allegro 1000 Speaker System may be used.

A2 = Model J2000W Series Allegro 2000 Speaker System may be used.

A3 = Model J3000W Series Allegro 3000 Speaker System may be used.

SPK = Switch to select Internal, External or Both.

#### NOTE E – MISCELLANEOUS FEATURES:

A = Speaker System is Allegro.

A1 = Speaker System is Allegro 1000.

A2 = Speaker System is Allegro 2000.

A3 = Speaker System is Allegro 3000.

AUX = Auxiliary input accepts certain optional Record Changers or Tape Units listed under Notes B and C.

DL = Dial Scale Light.

F = Flywheel Tuning.

H = Headphone Jack (Stereo).

HH = Headphone Jack (Four Channel).

PL = Power Indicator Light (other than Dial Scale Light).

RS = Record Storage.

T = Tuning Meter.

TIO = Tape Input/Output.

TO = Tape Output.

UNI = Uniband Dial Scale Light.

# RECORD CHANGER FEATURES

## SEE NOTES BELOW

Part No.	Mfg. Code	Stylus Pressure Grams	Cartridge & Stylus Note 2	45 RPM Adapter	Turntable		Function Selector	Record Size/ Selector Note 3	Record Stack Capacity	Base-Plate Color	Turntable Pad Color	Pressure Arm Color	Misc. Features
					RPM Selector	Diameter Inches							
169-512A	BSR	2.5-4.0	142-185 56-638 D	S-72648	33, 45, 78 Slide	11"	Stop, Start, Auto Slide	7, 10, 12 Manual Slide	See Note 5	Black	Black	Black	Cue Lever, Stylus Brush
169-541	VM	3.5-4.5	142-187 56-639 D-S	S-82964	16, 33, 45 78 Slide	10"	Off, On, Rej. Slide	7, 10, 12, M Manual Slide	See Note 5	Black	Black	Black and Silver	Cue Lever
169-554	BSR	3.5-4.5	142-190 56-643 D-S	S-72648	33, 45, 78 Slide	11"	Stop, Start, Auto Slide	7, 10, 12 Manual Slide	See Note 5	Black	Black	Black	Cue Lever
169-55401	BSR	3.5-4.5	142-186 56-639 D-S	S-72648	33, 45, 78 Slide	11"	Stop, Start, Auto Slide	7, 10, 12 Manual Slide	See Note 5	Black	Black	Black	Cue Lever
160-555	BSR	3.0-4.0	142-189 56-641 D Note 7	S-72648	33, 45, 78 Slide	11"	Stop, Start, Auto Slide	7, 10, 12 Manual Slide	See Note 5	Black	Black	Black	Cue Lever
169-556	BSR	3.0-4.0	142-189 56-641 D Note 7	S-72648	33, 45, 78 Slide	11"	Stop, Start, Auto Slide	7, 10, 12 Manual Slide	See Note 5	Black	Black	Black	Viscous Cue Lever
169-55601	BSR	3.0-4.0	142-189 56-641 D Note 7	S-72648	33, 45, 78 Slide	11"	Stop, Start, Auto Slide	7, 10, 12 Manual Slide	See Note 5	Black	Black	Black	Viscous Cue Lever
169-557	VM	3.5-4.5	142-191 56-642 D-S	S-82964	16, 33, 45, 78 Slide	11"	Off, On, Rej. Rotary	7, 10, 12, M Manual Slide	See Note 6	Black	Black	Black and Silver	Cue Lever
169-558 169-55801	VM	3.5-4.5	142-192 56-643 D-S	S-82964	16, 33, 45, 78 Slide	11"	Off, On, Rej. Slide	7, 10, 12, M Manual Slide	See Note 6	Black	Black	Black and Silver	Cue Lever
169-559	VM	3.5-4.5	142-192 56-643 D-S	S-82964	16, 33, 45, 78 Slide	11"	Off, On, Rej. Slide	7, 10, 12, M Manual Slide	See Note 6	Black	Black	Black and Silver	Cue Lever
169-560	BSR	3.5-4.5	142-190 56-643 D-S	S-72648	33, 45, 78 Slide	11"	Stop, Start, Auto Slide	7, 10, 12 Manual Slide	See Note 5	Black	Black	Black	Viscous Cue Lever
169-561	BSR	3.5-4.5	142-190 56-643 D-S	S-72648	33, 45, 78 Slide	11"	Stop, Start, Auto Slide	7, 10, 12 Manual Slide	See Note 5	Black	Black	Black	Cue Lever

**NOTE:**

1. All record changers have 120VAC 60Hz motors.
2. D = Diamond, S = Manufactured Sapphire.
3. When Size Control is in "M", Tone Arm must be placed on record manually.
4. Stylus 56-632 and 56-638 are dual radius diamond stylus with universal truncated tip for playing both LP (33 and 45 RPM) and 78 RPM records.
5. Record changers will play as many as five (flat and unwarped) records in 12-inch, 10-inch or 7-inch size. Sizes cannot be intermixed.
6. Record changers will play as many as six (flat and unwarped) records in 12-inch, 10-inch or 7-inch size. Sizes cannot be intermixed.
7. Cartridge 142-189 is of the moving magnet (magnetic) type. Stylus 56-641 has a 0.6 mil spherical tip. 56-641-01 is an optional 2.5 mil stylus for playing 78 RPM records.

**TAPE UNIT FEATURES**  
**SEE NOTES ON PAGE 9**

Part No.	Mfg. Code	8-Track/ Cassette	Channels		ALC/Full Feature Note A	Motor Note B	Auto Stop Note C	Use Note D	Misc. Features Note E
			Play	Record					
169-458	AMI/MC	8-Track	2	—	—	AC	—	M	A1, C1
169-463	Maruco	Cassette	2	2	ALC	DC/E	Tape	M	A1,B,C1,E,FF, I, P2
169-464	AMI/MC	8-Track	2	—	—	AC	—	C	A1, C1
169-469	AMI/MC	8-Track	2	2	Full	DC/M	Full	M	A1,C1,FF,I, M, P1, R
169-471	AMI/MC	8-Track	2/4	—	—	AC	—	M	A1,C1,Q
169-472	AMI/MC	8-Track	2	2	Full	DC/M	Full	M	A1,C1,FF,I, M, P1, R
169-473	AMI/MC	8-Track	2	—	—	AC	—	M	A1, C1
169-485	AMI/MF	8-Track	2/4	—	—	AC	—	C	A1, C1, Q
169-486	AMI/MF	8-Track	2	—	—	AC	—	C	A1, C1
169-487	AMI/MC	8-Track	2	2	Full	DC/M	Full	C	A1,C1,FF,I, M, P1, R
169-489	AMI/MF	8-Track	2	—	—	AC	—	M	A1, C1
169-490	AMI/MF	8-Track	2	—	—	AC	—	C	A1, C1
169-490A	AMI/MF/Z	8-Track	2	—	—	AC	—	C	A1, C1
169-490B	AMI/MF/Z	8-Track	2	—	—	AC	—	C	A1, C1
169-491	AMI/MF	8-Track	2/4	—	—	AC	—	M	A1, C1, Q
169-492	AMI/MF	8-Track	2	—	—	AC	—	M	A1, C1
169-494	JVC	Cassette	2	2	ALC	DC/M	Tape	M	A1,B,C1,E,FF, I, P2
169-494-01	JVC	Cassette	2	2	ALC	DC/M	Tape	M	A1,B,C1,E,FF, I, P2
169-505	AMI/MF	8-Track	2	—	—	AC	—	W	A2, C1
169-505A	AMI/MF/Z	8-Track	2	—	—	AC	—	W	A2, C1
169-505B	AMI/ML	8-Track	2	—	—	DC/M	—	W	A2, C1
169-505D	AMI/EE	8-Track	2	—	—	AC	—	W	A2, C1
169-505E	AMI/MF/Z	8-Track	2	—	—	AC	—	W	A2, C1
169-505F	AMI/MF/Z	8-Track	2	—	—	AC	—	W	A2, C1
169-505G	AMI/MF/Z	8-Track	2	—	—	AC	—	W	A2, C1
169-506	AMI/MC	8-Track	2	2	Full	DC/M	Full	W	A2,C1,FF,I, M, P1, R
169-506B	AMI/ML	8-Track	2	2	Full	DC/M	Full	W	A2,C1,FF,I, M, P2, R
169-506C	AMI/MC/Z	8-Track	2	2	Full	DC/M	Full	W	A1,C1,FF,I, M, P1, R
169-506D	AMI/MC/Z	8-Track	2	2	Full	DC/M	Full	W	A2,C1,FF,I, M, P1, R
169-506-01	AMI/MC	8-Track	2	2	Full	DC/M	Full	C	A2,C1,FF,I, M, P1, R
169-506-01A	AMI/ML	8-Track	2	2	Full	DC/M	Full	C	A2,C1,FF,I, M, P2, R
169-506-01B	AMI/MC	8-Track	2	2	Full	DC/M	Full	C	A2,C1,FF,I, M, P1, R
169-507	AMI/MC	8-Track	2	2	Full	DC/M	Full	M	A2,C1,FF,I, M, P1, R
169-507A	AMI/MC/Z	8-Track	2	2	Full	DC/M	Full	M	A2,C1,FF,I, M, P1, R
169-507-02	AMI/ML	8-Track	2	2	Full	DC/M	Full	M	A2,C1,FF,I, M, P2, R
169-508	AMI/MF	8-Track	2	2	ALC	AC	Four	C	A2,C1,I,R
169-508B	AMI/ML	8-Track	2	2	ALC	DC/M	Four	C	A2,C1,I,R

# TAPE UNIT FEATURES

## SEE NOTES ON PAGE

Part No.	Mfg. Code	8-Track/ Cassette	Channels		ALC/Full Feature Note A	Motor Note B	Auto Stop Note C	Use Note D	Misc. Features Note E
			Play	Record					
169-508-01B	AMI/ML/Z	8-Track	2	2	ALC	DC/M	Four	M	A2,C1,I,R
169-509	AMI/MF	8-Track	2	2	ALC	DC/M	Four	M	A2,C1,I,R
169-509B	AMI/ML	8-Track	2	2	ALC	DC/M	Four	M	A2,C1,I,R
169-510	AMI/MF	8-Track	2	—	—	AC	—	M	A2,C1
169-510A	AMI/MC/Z	8-Track	2	—	—	AC	—	M	A2,C1
169-510B	AMI/MC/Z	8-Track	2	—	—	AC	—	M	A2,C1
169-510C	AMI/ML	8-Track	2	—	—	DC/M	—	M	A2,C1
169-510E	AMI/EE	8-Track	2	—	—	AC	—	M	A2,C1
169-510F	AMI/MF/Z	8-Track	2	—	—	AC	—	M	A2,C1
169-510G	AMI/MF/Z	8-Track	2	—	—	AC	—	M	A2,C1
169-518	AMI/MF	8-Track	2/4	—	—	AC	—	M	A2,C1,Q
169-519	JVC	Cassette	2	2	ALC	DC/M	Tape	M	A2,B,C1,E,FF, I, P2
169-520	AMI/MF	8-Track	2	—	—	AC	—	M	A2, C1
169-520A	AMI/ML	8-Track	2	—	—	DC/M	—	M	A2, C1
169-520C	AMI/EE	8-Track	2	—	—	AC	—	M	A2, C1
169-520D	AMI/MF/Z	8-Track	2	—	—	AC	—	M	A2, C1
169-521	AMI/MF	8-Track	2	—	—	AC	—	C	A2, C1
169-521A	AMI/MF/Z	8-Track	2	—	—	AC	—	C	A2, C1
169-521B	AMI/ML	8-Track	2	—	—	DC/M	—	C	A2, C1
169-521D	AMI/EE	8-Track	2	—	—	AC	—	C	A2, C1
169-521E	AMI/MF/Z	8-Track	2	—	—	AC	—	C	A2, C1
169-521F	AMI/MF/Z	8-Track	2	—	—	AC	—	C	A2, C1
169-521G	AMI/MF/Z	8-Track	2	—	—	AC	—	C	A2, C1
169-522	AMI/MF	8-Track	2/4	—	—	AC	—	C	A2, C1, Q
169-523	AMI/MC	8-Track	2	2	Full	DC/M	Full	C	A2,C1,FF,I, M, P1, R
169-536	AMI/ML	8-Track	2	—	—	DC/M	—	C	A2, C2
169-536-01	AMI/ML	8-Track	2	—	—	DC/M	—	MA	A1, C1
169-536-01A	AMI/ML/Z	8-Track	2	—	—	DC/M	—	MA	A1, C1
169-537	AMI/ML	8-Track	2	2	ALC	DC/M	Four	C	A2, C2, I, R
169-537-01	AMI/ML	8-Track	2	2	ALC	DC/M	Four	MA	A1, C1, I, R
169-537-01A	AMI/ML/Z	8-Track	2	2	ALC	DC/M	Four	MA	A1, C1
169-539	AMI/CA	Cassette	2	2	ALC	DC/E	Tape All	M	A2,C1,E,FF, I, P2, RL, T, TB, TC, TE
169-543	AMI/CW	Cassette	2	2	ALC	DC/E	Tape All	M	A3, C3, E, FF, I, P2, RL, TC
169-544	AMI/ML	8-Track	2	—	—	DC/M	—	M,C	A2, C3
169-545	AMI/ML	8-Track	2	2	ALC	DC/M	Four	C	A2, C3, I, R
169-546	AMI/ML	8-Track	2	2	ALC	DC/M	Four	M,C	A2, C3, FF, I, P2, R

### NOTES

#### NOTE A – RECORD

ALC = Automatic Level Control

Full = Full Feature with Record Level Controls and Meters.

#### NOTE B – MOTOR

E = Electronic Governor

M = Mechanical Governor

AC Motors require conversion kit if used on 50Hz.

#### NOTE C – AUTO STOP

Full = Stops after each program, fourth program or runs continuously (in both Play and Record modes). Selected by three position slide control.

Four = Stops after fourth program in Record only.

Tape = Tape tension sensor at end of tape in Play and Record only.

Tape All = Stops at end of tape in Play/Record/Fast Forward/Rewind modes.

#### NOTE D – USED IN

C = Console

M = Modular

MA = Modular Accessory

W = Wedge Modular

#### NOTE E – MISC. FEATURES

A1 = Parallel Blade AC Connector.

A2 = Molex Type AC Connector.

A3 = Hard Wire AC Connector.

B = Bias Frequency Switch.

C1 = RCA Type Audio Connector.

C2 = Spade Lug Audio Connector.

C3 = Hard Wire Audio Connector.

E = Eject

FF = Fast Forward Button (Push-Push Type).

I = Interlocked Record Button.

M = Record Level Meter (Illuminated).

P1 = Pause Button (Push In, Slide Left to Lock).

P2 = Pause Button (Push-Push).

Q = Automatic 2/4 Channel Switching, with mode indicator.

R = Ready Light or Auto Stop Light.

RL = Record Light.

T = Tape Run Light.

TB = Tape Bias Switch (CrO2 / Normal).

TC = Tape Counter.

TE = Tape Equalization Switch (CrO2 / Normal).

# TECHNICAL APPLICATIONS

TABLE A – ALLEGRO SPEAKER SYSTEM MODELS

IMPEDANCE SERIES	8 OHM	16 OHM
Allegro 1000	E9012W, E9012W1, G1000W, G9012W1, H1000W, H1000W1, H1000W2, H1000W3, J1000W1, J1000W2	—
Allegro 2000	G2000W, G2000W11, G9014W, H2000W, H2000W3, J2000W1, J2000W2	E9014W, E9014W1, E9014X, E9014X1
Allegro 3000	G3000W, G3000W11, G9018W, H3000W, H3000W3, J3000W1	E9018W, E9018W1, E9018X1
Allegro	G9019W	—

**SERVICE PROCEDURES FOR  
"CAPTIVATED BACK" ALLEGRO SPEAKER  
SYSTEMS**  
**(MODELS H1000W2, H1000W3, H2000W3,  
H3000W3, J1000W1, J1000W2,  
J2000W1, J2000W, J3000W1)**

Models listed above have "captivated backs" and require a service technique that is different from that used with prior speaker enclosures having removable backs. To gain access to the inside of these "captivated back" enclosures it is necessary to cut-out a portion of the existing back, make the required repairs (replace a speaker, etc.) and then install a replacement back.

Proceed as follows:

1. Place speaker enclosure on a firm work surface protected by felt or similar non-abrasive material. It may be desirable to construct a padded framework to hold the speaker enclosure during the following steps.

**CAUTION:** To protect the cabinet and grille from damage position the enclosure so the grille and Allegro port (which protrude in front of the cabinet) will not touch any surface in the work area.

**CAUTION:** Do not permit enclosure to slide while performing these steps, as this may scratch or otherwise mar the cabinet's finish.

2. Draw four (4) straight lines on existing cabinet back as illustrated (by dash lines) in Figure 1. The lines must be approximately 3" from, and parallel with, the outer edges of side, top and bottom panels.

3. Referring to Figure 2, cut along the four (4) lines marked in step 2, using a sabre saw or router.

**CAUTION:** All holes required to start cut, and the cut itself, must be made to side of line nearest the center of cabinet back, so as to avoid possible damage to portion of cabinet back that remains in cabinet. Control depth of cut to avoid cutting either speaker wire or acoustic pads inside enclosure (back is approximately 3/8" thick).

TABLE B – SPEAKER ENCLOSURE SIZE

MODEL LINE ALLEGRO SERIES	"G"	"H"	"J"
1000	16-1/2" h, 10-1/2" w, 7-1/2" d	18" h, 10-1/2" w, 7-1/2" d	20-1/2" h, 13-1/2" w, 7-1/4" d
2000	18-5/8" h, 12-3/8" w, 7-7/8" d	20-5/8" h, 13" w, 7-7/8" d	22-1/2" h, 14-1/2" w, 8-5/8" d
3000	22-3/4" h, 14-1/4" w, 8-7/8" d	24-3/4" h, 15-5/8" w, 10" d	24-3/4" h, 15-5/8" w, 10" d

4. Remove and discard cut-out portion of back.

5. Acoustic material might be stapled to inside of some enclosures. If this material must be removed, first remove staples (if used) being certain loose staples do not lodge inside enclosure. Acoustic material must be replaced in same location after completing repairs (a "U" shape with bottom edge near inside bottom of cabinet).

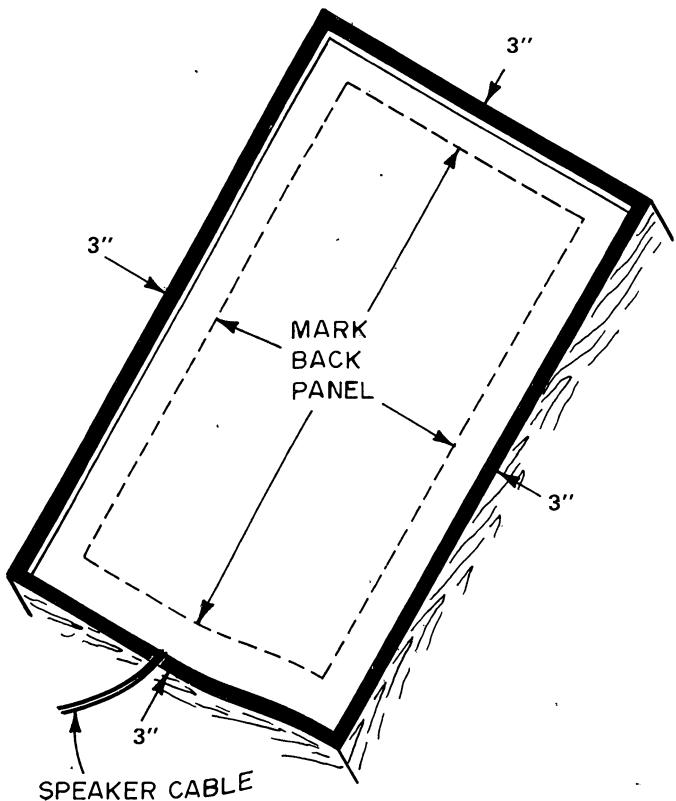


FIGURE 1 – MARKING BACK PANEL

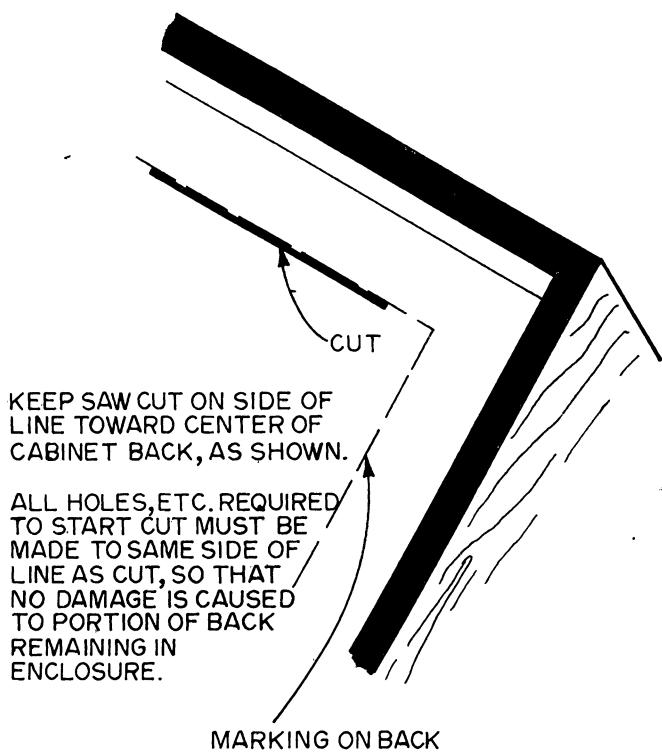


FIGURE 2 - AREA OF CUT

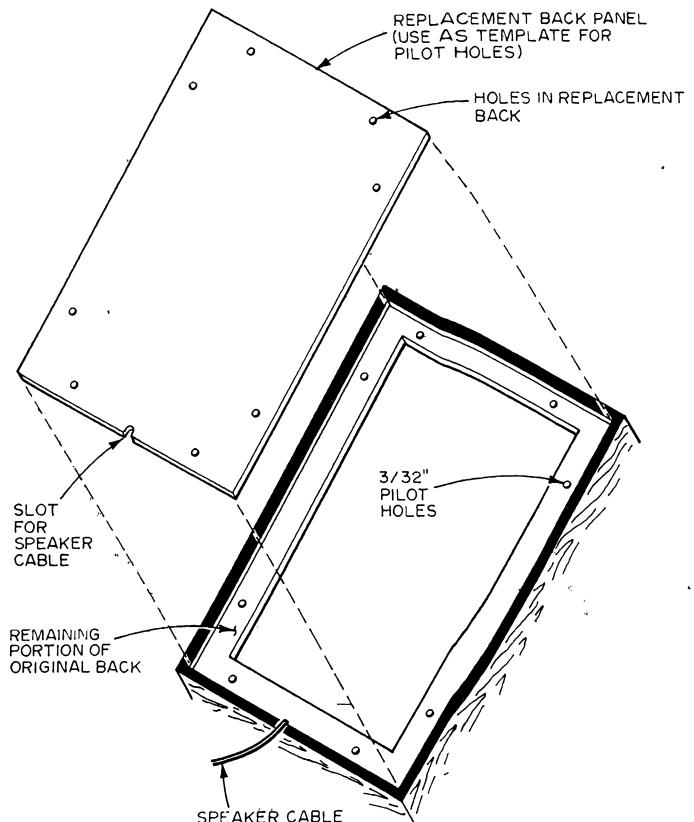


FIGURE 3 - PILOT HOLES

6. Repair (replace speakers, etc.) as needed.
7. Position replacement back panel on that portion of back still remaining (See Figure 3).  
NOTE: Be certain speaker cable is fed out through slot provided at bottom edge of replacement back.
8. Replacement back has predrilled holes.
9. Using replacement back as a template, drill holes in portion of remaining back using  $3/32"$  bit. These will be pilot holes for screws that hold replacement back.
10. Remove back and clean all chips, shavings, dust or other foreign material from enclosure.
11. Apply a strip of tape provided, to the surface of the back, remaining in the enclosure, against which the replacement back will rest (See shaded area in Figure 4). This tape *must* be used to prevent air leaks.
12. Position replacement back on portion of back remaining in enclosure.  
CAUTION: Be certain speaker cable is fed out through slot provided at bottom edge of replacement back.
13. Insert screws provided through the pre-drilled holes in the replacement back. Tighten the screws so the back is firmly secured to the portion of the back remaining in the enclosure (See Figure 5).
14. Test completed unit.

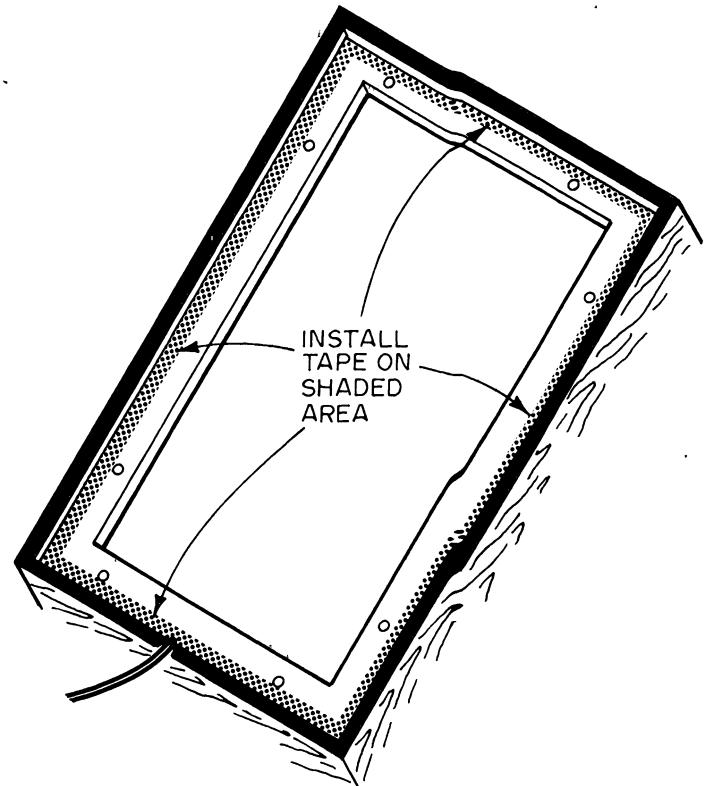


FIGURE 4 - INSTALLING TAPE

POSITION REPLACEMENT BACK PANEL ON REMAINING PORTION OF THE ORIGINAL BACK AND SECURE WITH 7/8" PHILLIPS FLAT HEAD SCREWS THROUGH EACH PREDRILLED HOLES IN REPLACEMENT BACK PANEL

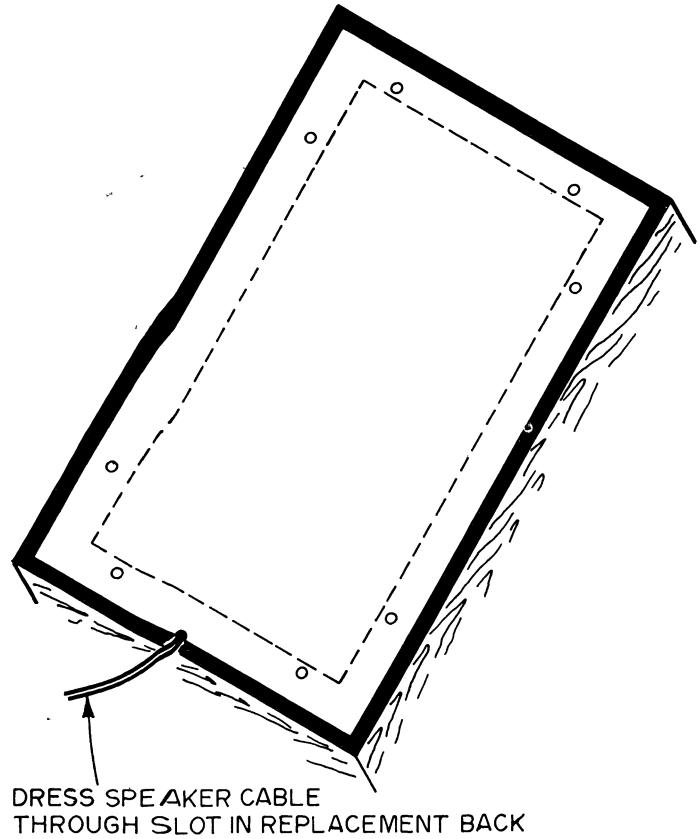


FIGURE 5 – SECURING NEW PANEL

## CABINET REPAIR TIPS

When servicing these units (or for that matter most speaker enclosures) several precautions must be taken:

- A. When removing the back, handle the acoustical pads carefully (they may tear easily).
- B. Speakers (and other components) must be securely fastened to prevent air leaks, and loose components can result in rattles. Air leaks and rattles can result in a deterioration of performance.
- C. When replacing the back, be certain that the acoustic pads don't obstruct the port.
- D. All screws holding the back must be secured, by using a sufficient amount of torque, in order to prevent air leaks.

## CABINET BACK REPAIR KITS

Repair kits for "H" and "J" Line Allegro models using "captivated" backs are listed in Table C.

NOTE: "J" Line kits are not interchangeable with "H" Line kits.

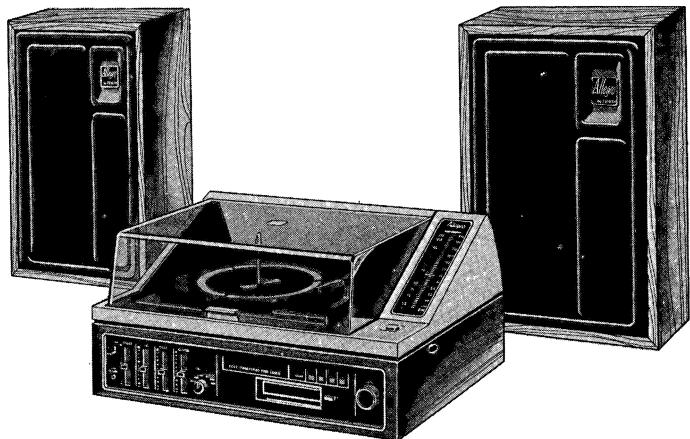
TABLE C – ALLEGRO BACK REPAIR KITS

KIT PART NO.	ALLEGRO MODEL NO.
802-31	H1000W2, H1000W3
802-32	H2000W3
802-33	H3000W3
802-34	J1000W1, J1000W2
802-35	J2000W1
802-36	J3000W1

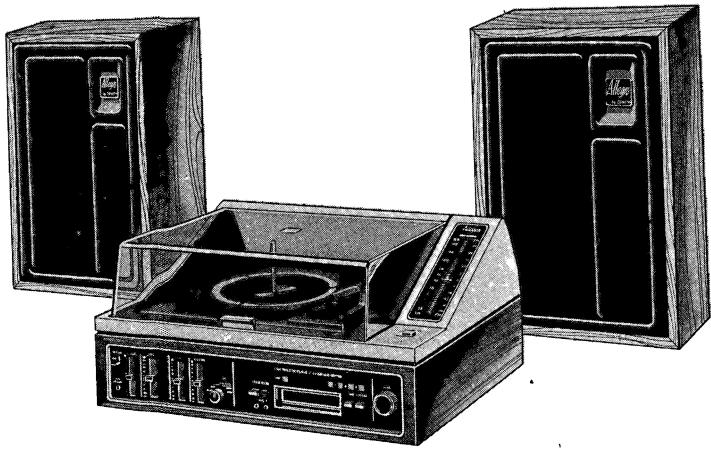
## NOTES



J584W



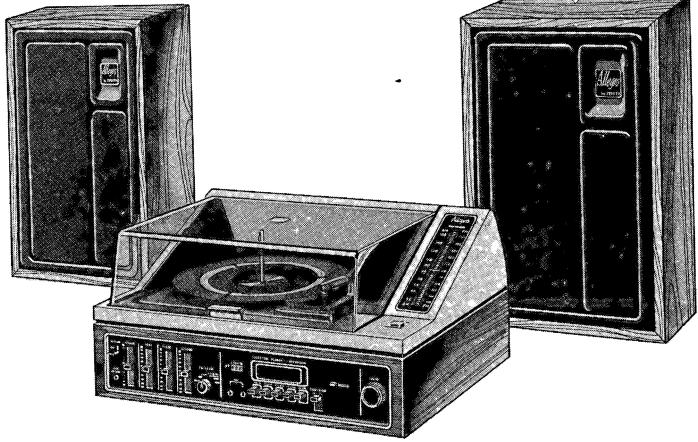
J587W



JR587W



JR684W & J9026W



JR588W

NOTE - MODULAR MODELS  
ARE SHOWN WITH OPTIONAL  
ALLEGRO SPEAKER SYSTEMS.

REPRESENTATIVE MODEL ILLUSTRATION



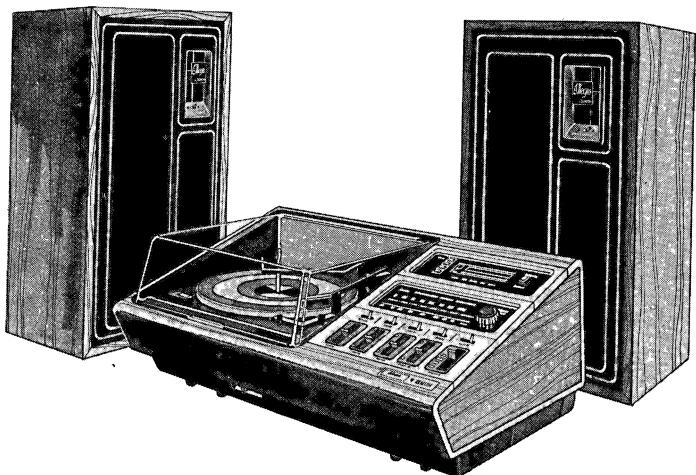
JR590W



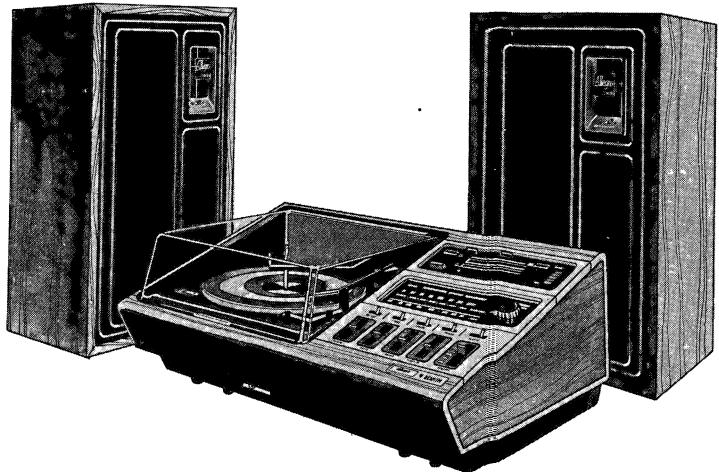
J590W



JR591W



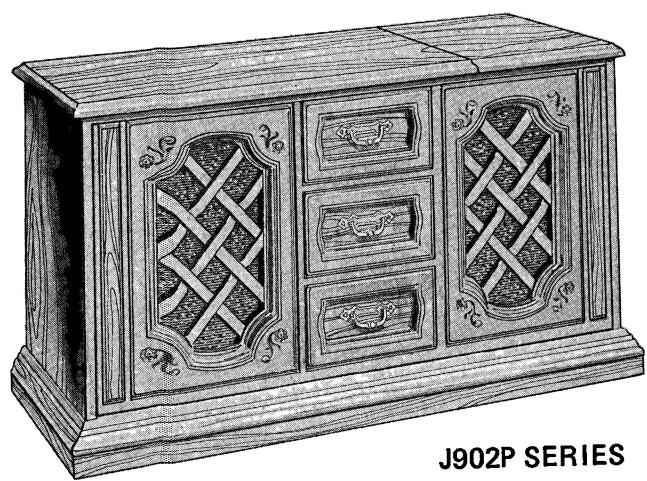
J596W



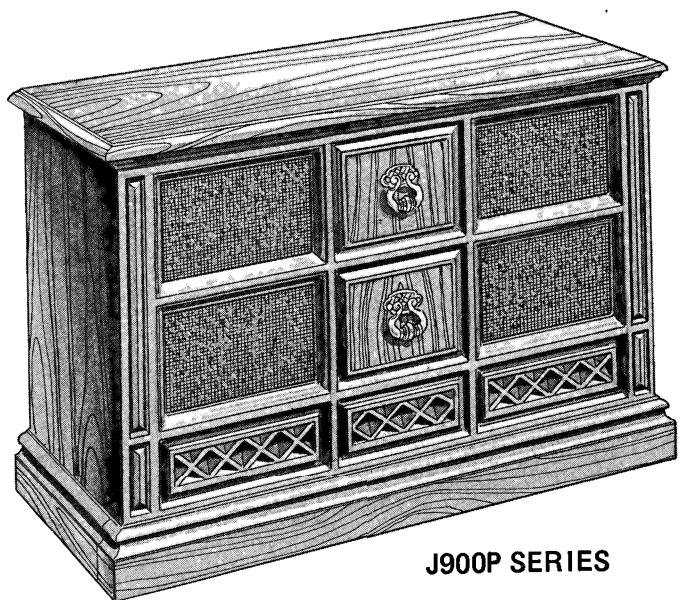
JR596W

NOTE - MODULAR MODELS  
ARE SHOWN WITH OPTIONAL  
ALLEGRO SPEAKER SYSTEMS.

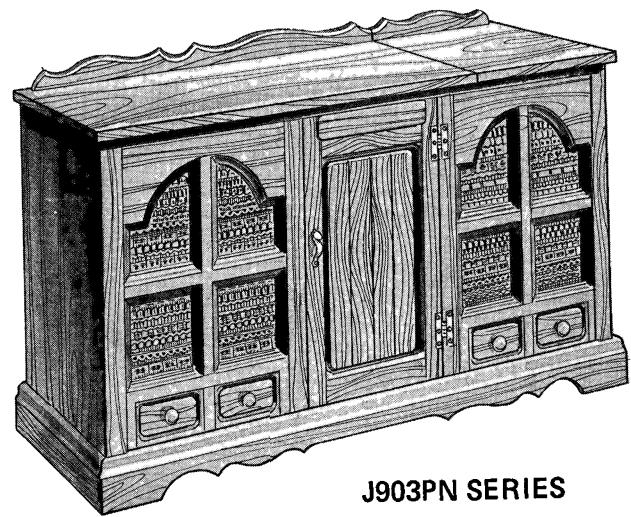
REPRESENTATIVE MODEL ILLUSTRATION



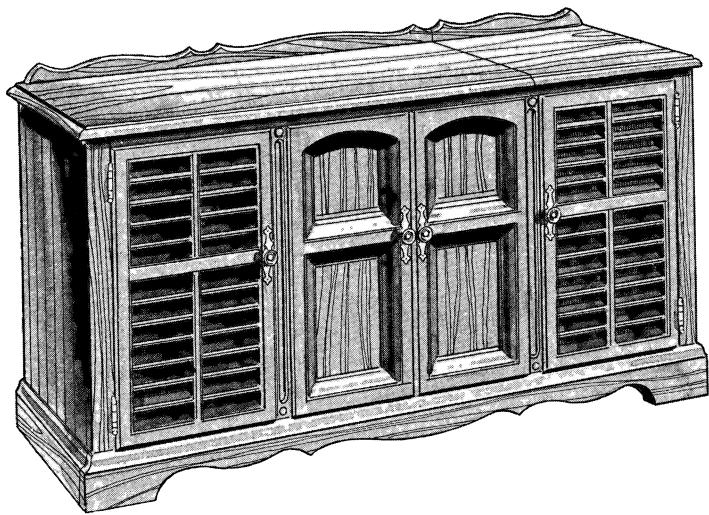
**J902P SERIES**



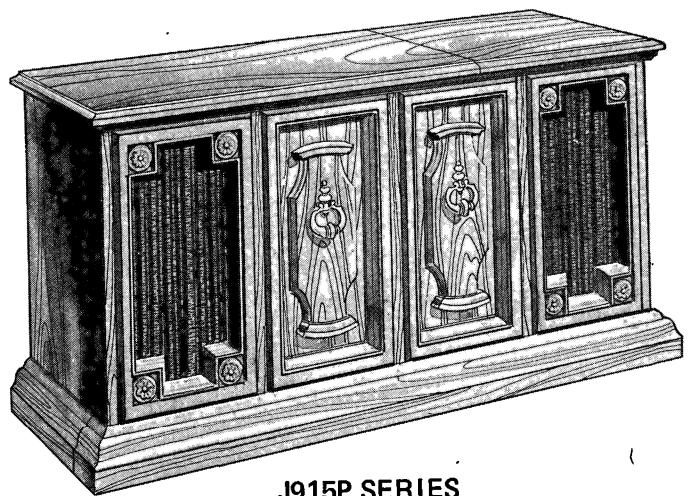
**J900P SERIES**



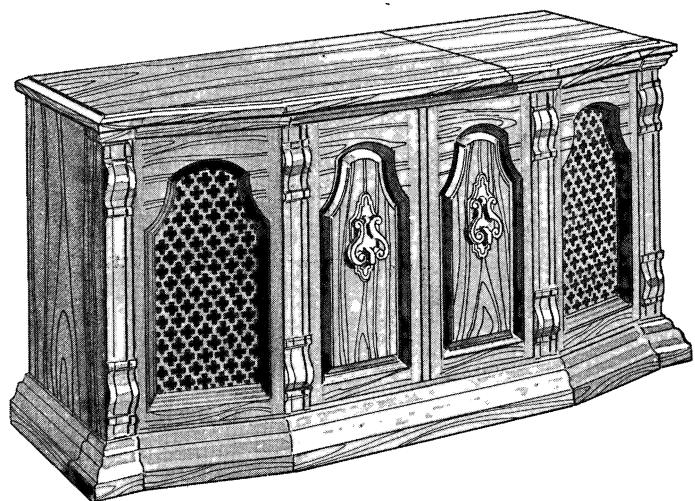
**J903PN SERIES**



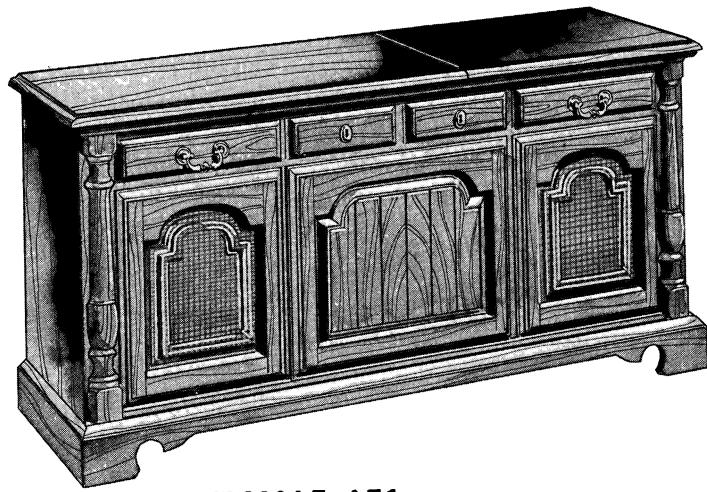
J916M SERIES



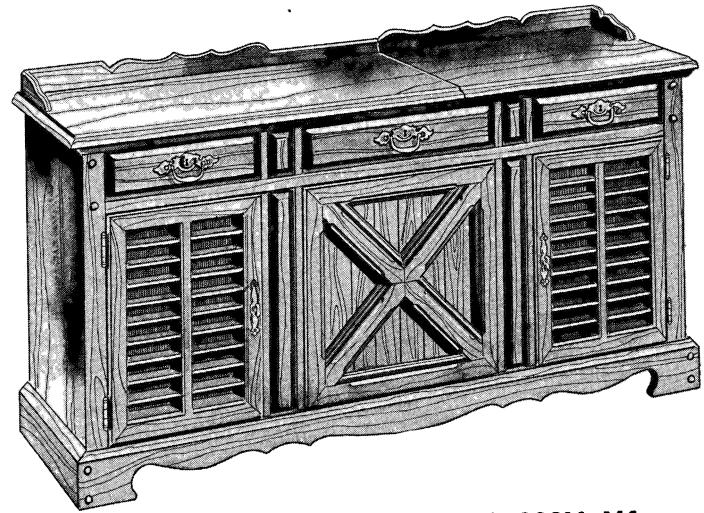
J915P SERIES



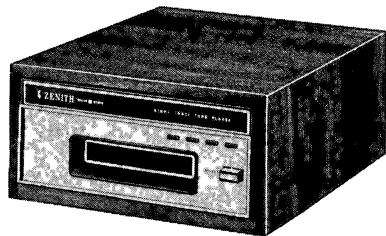
JR919P, P1



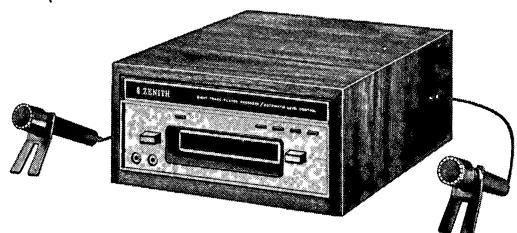
JR920AE, AE1



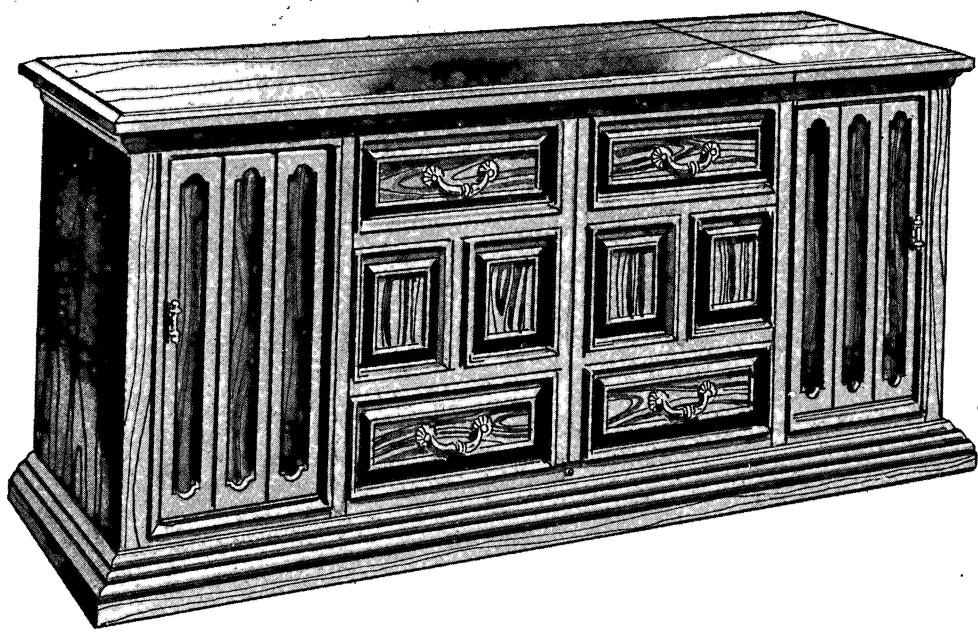
JR922M, M1



J635W



JR638W



JR966P

REPRESENTATIVE MODEL ILLUSTRATIONS

## NOTES

## REVISIONS

Revisions to information previously published in "HF" series service manuals is shown in the following charts. Each chart heading will list Chassis and/or Model identification and reference to the appropriate Service Manual. Information will normally consist of: schematic reference number (i.e. C304), action taken (omit, add, or alternate useage), part number and description of components, and a partial schematic of the circuit or other appropriate drawing.

CHASSIS 1WJR55			1WJR55 CHASSIS
MODELS J900P, J900P11, J900P21, J900P31, J900P32, J900P34, JR900P, JR900P31, JR900P32, JR900P33, JR900P34, JR900P35, JR900P36, JR901P, J902P, J902P11, J902P31, J902P32, J902P33, JR902P, JR902P11, JR902P12, JR902P31, JR902P32, JR902P33, JR902P34, J903PN, J903PN11, J903PN31, J903PN32, J903PN, J903PN11, J903PN12, JR903PN31, JR903PN32, JR903PN33, JR903PN34.			
COMPONENT CHANGES		REFER TO HF33	DRAWING CHANGES
—			(5192-, 5193D1, C2, D3)
—		NOTE — Alternate Speaker Circuits	Revised Drawing on Page 24 of this manual.
—		Circuit Board Drawing revised at: C1, C6, C12, C17, C103, C457, L203, L204, Q401, Q451, R4, R310, R405, T103, T201. Added Voltages and Lead Identification.	Revised Drawing on Page 25 of this manual.

CHASSIS 3WJR50, 3WJR50Z			3WJR50, 3WJR50Z CHASSIS	
MODELS J915P, J915P11, J915P12, JR915P, JR915P11, JR915P12, J916M, J916M11, J916M12, JR916M, JR916M11, JR916M12, JR919P, JR919P1, JR920AE, JR920AE1, JR922M, JR922M1, SJ2597P.				
COMPONENT CHANGES		REFER TO HF33	DRAWING CHANGES	
—			(5194-1, -2, 5195B1, B2, A3, A4)	
C6		OMIT 22-7615-04 ADD 22-2729	4700 PF +80-20% 50V 1000 PF +50-30% 25V	
SW2		OMIT 85-1506 ADD 85-1506-01	FM AFC Switch FM AFC Switch	
SW4		OMIT 85-1508 ADD 85-1508-01	Speaker Switch Speaker Switch	
SW5		OMIT 85-1507 ADD 85-1507-01	Hi Cut Switch Hi Cut Switch	
—		NOTE —	RF/IF/MPX Circuit Board Drawing revised at: C1, C6, C14, C17, C18, C109, C208, C302, CR301, IC101, IC201, IC301, L203, Q1, R101, R109, R211, R301, R506, T103, T201, Voltages and Lead Identification.	Revised Drawing on Page 26 of this manual.
—		NOTE —	Audio Circuit Board Drawing revised at: C422, C468, Q301, Q401, Q451, R432, R482, SW5 and Lead Identifications.	Revised Drawing on Page 26 of this manual.



MODELS J590W, JR590W, JR590W1, JB591W

REFER TO HF33

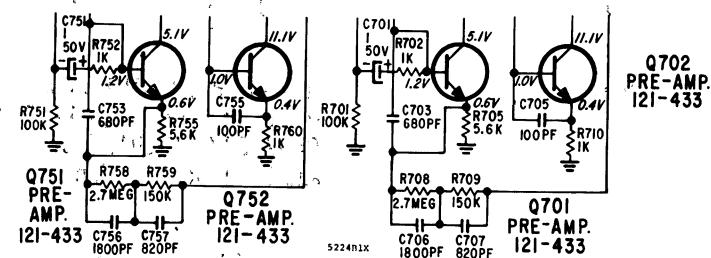
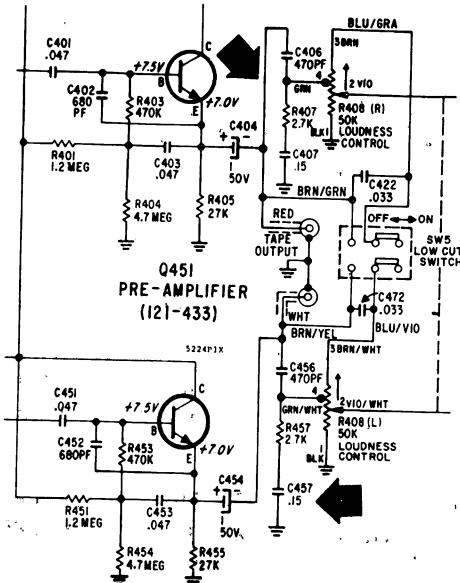
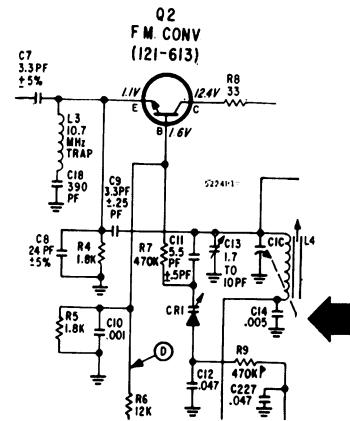
## DRAWING CHANGES

(5226-, 5224B1, B2)

C14	OMIT	22-7615-04	4700 PF +80-20% 50V
	ADD	22-3080	5000 PF +50-30% 25V
C407/	OMIT	22-5964	.27 MF 10% Mylar 50V
C457	ADD	22-7548	.15 MF 10% Mylar 50V
C707/	OMIT	22-5761	470 PF 10% 1000V
C757	ADD	22-3412	820 PF 10% 500V
R751	NOTE	63-9922-20	100K 0 ohm 10% 1/4W

**NOTE** - RF/IF/MPX/AUDIO Circuit Board  
Drawing revised at: C14, C407,  
C457, Q456, SWX1, and SW5.

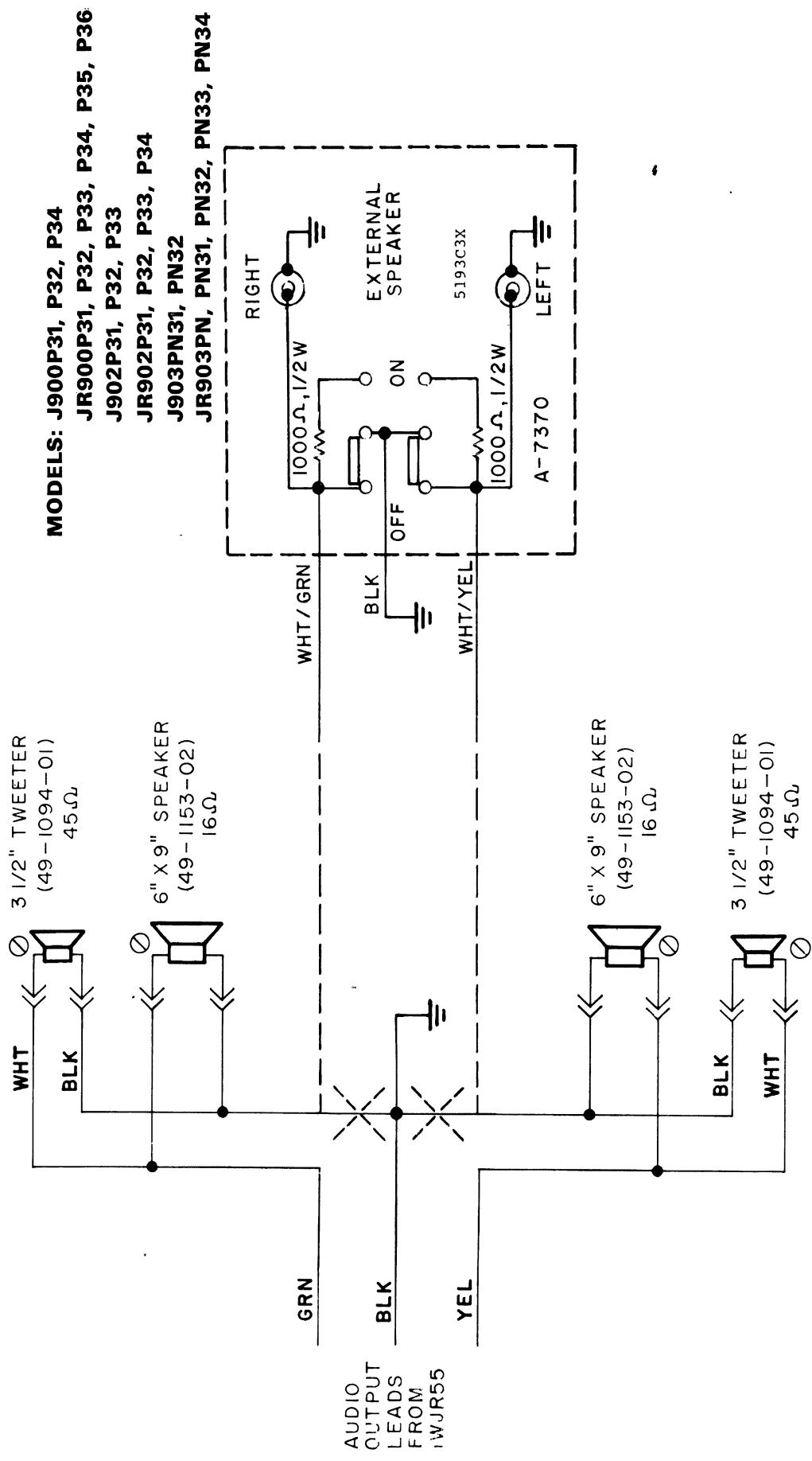
NOTE - PREAMP Circuit Board Drawing  
revised at: R711 and Voltages  
added.



## MODELS J596W, JR596W, JR966P, SJ2599P

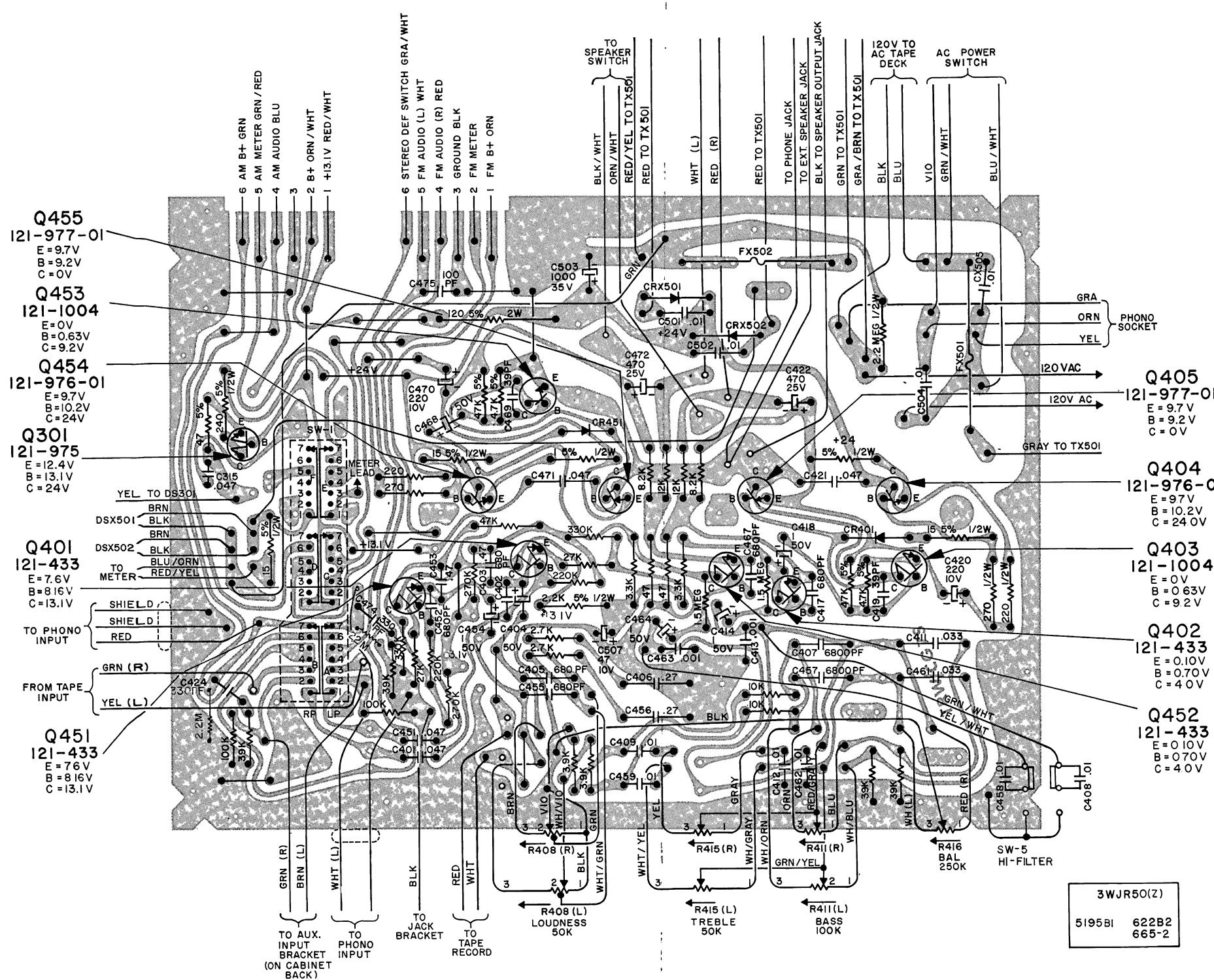
COMPONENT CHANGES			REFER TO HF33	DRAWING CHANGES
(5232-, 5225B1, B2, A3, A4)				
R213	OMIT ADD	63-10524-03 63-10651-02	2.5K FM Meter Adjust 2.5K FM Meter Adjust	
R308	OMIT ADD	63-10524-01 63-10651-04	10K Mute Adjust 10K Mute Adjust	
R317	OMIT ADD	63-10524 63-10651-03	5K Phase Locked Loop Adjust 5K Phase Locked Loop Adjust	
SW1	OMIT ADD	85-1501 85-1474	Bandswitch Bandswitch	
R209	OMIT ALT ADD ALT	63-9921-78 63-10183-78 63-9921-76 63-10183-76	1.8K 5% 1/4W 1.8K 10% 1/4W 1.5K 5% 1/4W 1.5K 10% 1/4W	
TX502	ADD	95-3393	Choke (SK2599P only)	
CX505/ CX506	NOTE	22-7431-07	.01 MF Disc 150VAC	
C227	NOTE	—	Add Disc to description	
—	NOTE	—	Red/Yellow lead at P3 Male Lead View is 53V.	
—	NOTE	—	RF/IF/MPX Circuit Board Drawing revised at: C15, C208, C221, C473, IC201, IC202, IC301, R209, R237, R302, T205.	
—	NOTE	—	POWER SUPPLY Circuit Board Drawing revised at: CX505, CX506 and DS505.	
—	NOTE	—	PREAMP Circuit Board Drawing revised at: R711 and Voltages.	

**MODELS: J900P, P11, P21, JR900P, JR901P  
 J902P, P11, JR902P, P11, P12  
 J903PN, PN11, JR903PN, PN11, PN12**

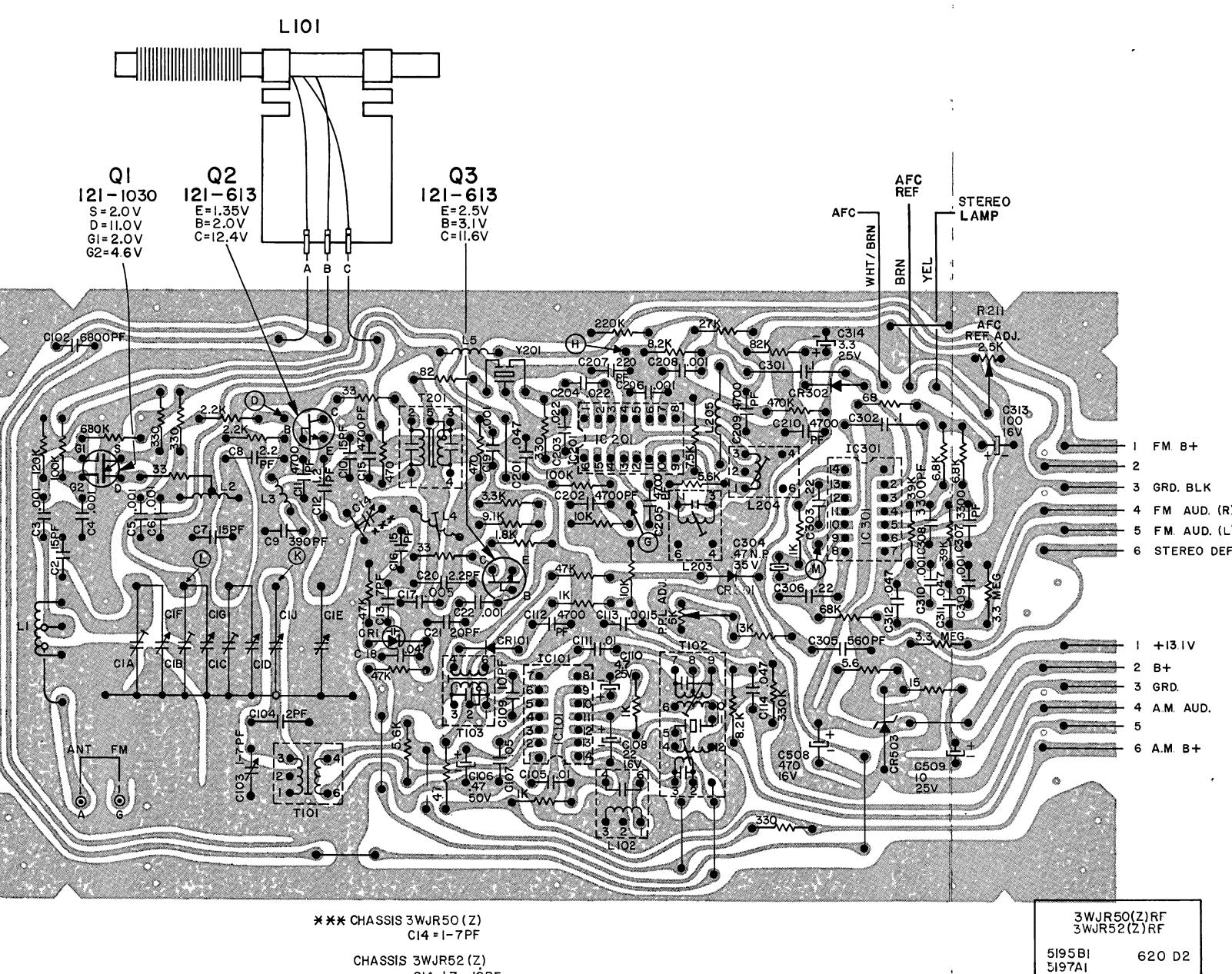


Ⓐ INDICATES WHITE OR YELLOW VOICE COIL  
 POLARITY IDENTIFICATION DOT ON SPEAKER

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
C1A		FM ANTENNA TRIMMER	C462	22-2939	.680 PFD DISC 500V	R467	63-9921-34	.27 OHM
C1B		FM ANTENNA TUNING	C463	22-2962	.1 MFD MYLAR 100V	R468	63-9921-82	.27K OHM
C1C		FM RF TRIMMER	C464	22-7151-06	.100 MFD ELECTROLYTIC 16V	R469	63-9921-82	1.0 OHM
C1D		FM ANTENNA TUNING	C465	22-2962	.001 MFD DISC 25V	R470	63-1757	.220 OHM 1/2W 10%
C1E		FM OSCILLATOR TUNING	C466	22-7151-07	.47 MFD ELECTROLYTIC 16V			
C1F		AM ANTENNA TRIMMER	C467	22-3983	.100 PFD DISC 500V			
C1G		AM ANTENNA TUNING	C468	22-7151-14	.0016 MFD DISC 50V			
C1H		AM ANTENNA TUNING	C469	22-7151-14	.220 PFD MYLAR 50V			
C1I		7 PF DISC 50V	C470	22-7152-09	.220 MFD ELECTROLYTIC 25V			
C3		15 PF DISC 50V						
C4		22-5621-22						
C5		.001 MFD DISC 25V	C501	22-4905	.01 MFD DISC 50V	L1	20-3771	.001 MFD ANTENNA COIL
C6		.001 MFD DISC 25V	C502	22-4905	.001 MFD DISC 50V	L2	20-3771	FM R.F. COIL
C7		.001 MFD DISC 25V	CX504*	22-7431-07	.0008 MFD ELECTROLYTIC 25V	L3	20-1631	TRAP COIL 10.7 MHZ
C8		.001 MFD DISC 25V	CX505*	22-7431-07	.01 MFD DISC 50VAC	L4	20-3772	FM OSCILLATOR COIL
C9		.001 MFD DISC 25V				L5	20-2033	10UH RF CHOKE
C10		.001 MFD DISC 25V						
C11		.0047 MFD DISC 50V	C508	22-1511-11	.470 MFD ELECTROLYTIC 16V	L101		
C12		.0047 MFD DISC 50V	C509	22-1511-11	.10 MFD ELECTROLYTIC 16V			
C13		.0047 MFD DISC 50V	R1	63-9921-88	.01 MFD DISC 50V			
C14		.0047 MFD DISC 50V	R2	63-9921-88	.22K OHM			
C15		.0047 MFD DISC 50V	R3	63-9921-88	.001 MFD DISC 50V			
C16		.0047 MFD DISC 50V	R4	63-9921-84	.33 OHM			
C17		.0047 MFD DISC 50V	R5	63-9921-80	.22K OHM			
C18		.0047 MFD DISC 50V	R6	63-9921-80	.001 MFD DISC 50V			
C19		.0047 MFD DISC 50V	R7	63-9921-80	.001 MFD DISC 50V			
C20		.0047 MFD DISC 50V	R8	63-9921-88	.33 OHM			
C21		.0047 MFD DISC 50V	R9	63-9921-88	.33 OHM			
C22		.0047 MFD DISC 50V	R10	63-9921-84	.470 OHM			
C102		.0068 MFD DISC 50V	R11	63-8807	.470 OHM			
C103		1.7 PF TRIMMER AM OSCILLATOR	R12	63-9921-12	.001 MFD DISC 50V			
C104		1.7 PF TRIMMER AM OSCILLATOR	R13	63-9921-22	.47K OHM			
C105		1.01 MFD 50V	R14	63-9921-95	.91K OHM			
C106		.047 MFD ELECTROLYTIC 50V	R15	63-9921-84	.33 OHM			
C107		.047 MFD ELECTROLYTIC 50V	R16	63-9921-84	.33 OHM			
C108		.047 MFD ELECTROLYTIC 50V	R17	63-9921-78	.1.8K OHM			
C109		.047 MFD ELECTROLYTIC 50V						
C110		.047 MFD ELECTROLYTIC 25V						
C111		.047 MFD ELECTROLYTIC 25V						
C112		.047 MFD ELECTROLYTIC 25V						
C113		.047 MFD ELECTROLYTIC 25V						
C114		.047 MFD ELECTROLYTIC 25V						
C201		.047 MFD DISC 50V	R201	63-9921-46	.82 OHM			
C202		.047 MFD DISC 50V	R202	63-9921-89	.10K OHM			
C203		.022 MFD DISC 50V	R203	63-9921-96	.10K OHM			
C204		.022 MFD DISC 50V	R205	63-9921-60	.330 OHM			
C205		.022 MFD DISC 50V	R206	63-9921-60	.5.6K OHM			
C206		.022 MFD DISC 50V	R207	63-9921-60	.6.8K OHM			
C207		.022 MFD DISC 50V	R208	63-9921-28	.220K OHM			
C208		.001 MFD DISC 1000V	R209	63-9922-36	.470K OHM			
C209		.0047 MFD DISC 50V	R210	63-10651-02	.25K OHM AFC REF ADJUST			
C210		.0047 MFD DISC 50V	PC	204-621	CIRCUIT BOARD			
C301		1 MFD NON-POLAR ELECTROLYTIC 50V	R301	63-9922-12	.47K OHM			
C302		1 MFD NON-POLAR ELECTROLYTIC 50V	R302	63-10651-03	.5K OHM PLL ADJUST			
C303		22 MFD DISC 12V	R303	63-10311-99	.13K OHM			
C304		.044 MFD NON-POLAR ELECTROLYTIC 35V	R304	63-9922-16	.68K OHM			
C305		.560 PFD DISC 500V	R305	63-9921-92	.6.8K OHM			
C306		.22 MFD DISC 12V	R306	63-9922-10	.39K OHM			
C307		.0047 MFD DISC 50V	R307	63-8832	.6.8K OHM			
C308		.0047 MFD DISC 50V	R308	63-9922-10	.39K OHM			
C309		.0047 MFD DISC 50V	R309	63-9922-56	.3.3 MEG OHM			
C310		.001 MFD DISC 25V	R310	63-9922-56	.3.3 MEG OHM			
C311		.047 MFD DISC 50V	R311	63-9922-56	.3.3 MEG OHM			
C312		.047 MFD DISC 50V	R313	63-7754	.180 OHM 1/2W			
C313		.100 MFD ELECTROLYTIC 16V	R314	63-7785	.100 OHM 1/2W			
C401		.047 MFD DISC 50V	R315	63-9211-44	.100 OHM			
C402		.047 MFD DISC 50V	R401	63-9924-56	.3.3 MEG OHM			
C403		.047 MFD DISC 50V	R402	63-9924-56	.3.3 MEG OHM			
C404		1 MFD ELECTROLYTIC 50V	R405	63-9922-06	.27K OHM			
C405		1 MFD ELECTROLYTIC 50V	R407	63-9921-82	.2.7K OHM			
C406		.0022 MFD DISC 50V	R408	63-10653	100K DUAL LOUDNESS CONTROL			
C407		.0089 MFD DISC 50V	R409	63-9922-04	.22K OHM			
C408		.01 MFD DISC 50V	R410	63-10654	500K BASS CONTROL			
C409		.01 MFD DISC 50V	R412	63-10656	50K TREBLE CONTROL			
C410		.0022 MFD DISC 50V	R413	63-9921-82	.47 MEG OHM			
C411		.0022 MFD DISC 50V	R414	63-9924-60	.4.7 MEG OHM			
C412		.680 PFD DISC 500V	R415	63-9924-60	.4.7 MEG OHM			
C413		.680 PFD DISC 500V	R416	63-9922-20	.100K OHM			
C414		.100 MFD ELECTROLYTIC 16V	R417	63-9922-20	.100K OHM			
C415		.47 MFD ELECTROLYTIC 16V	R418	63-9921-82	.2.7K OHM			
C416		.47 MFD ELECTROLYTIC 16V	R419	63-9921-82	1 OHM			
C417		.220 MFD ELECTROLYTIC 25V	R420	63-1757	.220 OHM 1/2W 10%			
C418		.047 MFD 50V	J1	78-2252	STEREO HEADPHONE JACK			
C419		.047 MFD 50V	P1	43-519	PHONO A.C.			
C420		.047 MFD 50V	P2	43-1203	TAPE A.C. CABLE			
C421		.22 MFD MYLAR 50V	R421	63-9921-82	.456 2.2M 500PF			
C422		.22 MFD MYLAR 50V	R422	63-9921-82	.456 2.2M 500PF			
C423		.047 MFD 50V	R423	63-9921-82	.456 2.2M 500PF			
C424		.047 MFD 50V	R424	63-9921-82	.456 2.2M 500PF			
C425		.047 MFD 50V	R425	63-9921-82	.456 2.2M 500PF			
C426		.047 MFD 50V	R426	63-9921-82	.456 2.2M 500PF			
C427		.047 MFD 50V	R427	63-9921-82	.456 2.2M 500PF			
C428		.047 MFD 50V	R428	63-9921-82	.456 2.2M 500PF			
C429		.047 MFD 50V	R429	63-9921-82	.456 2.2M 500PF			
C430		.047 MFD 50V	R430	63-9921-82</				



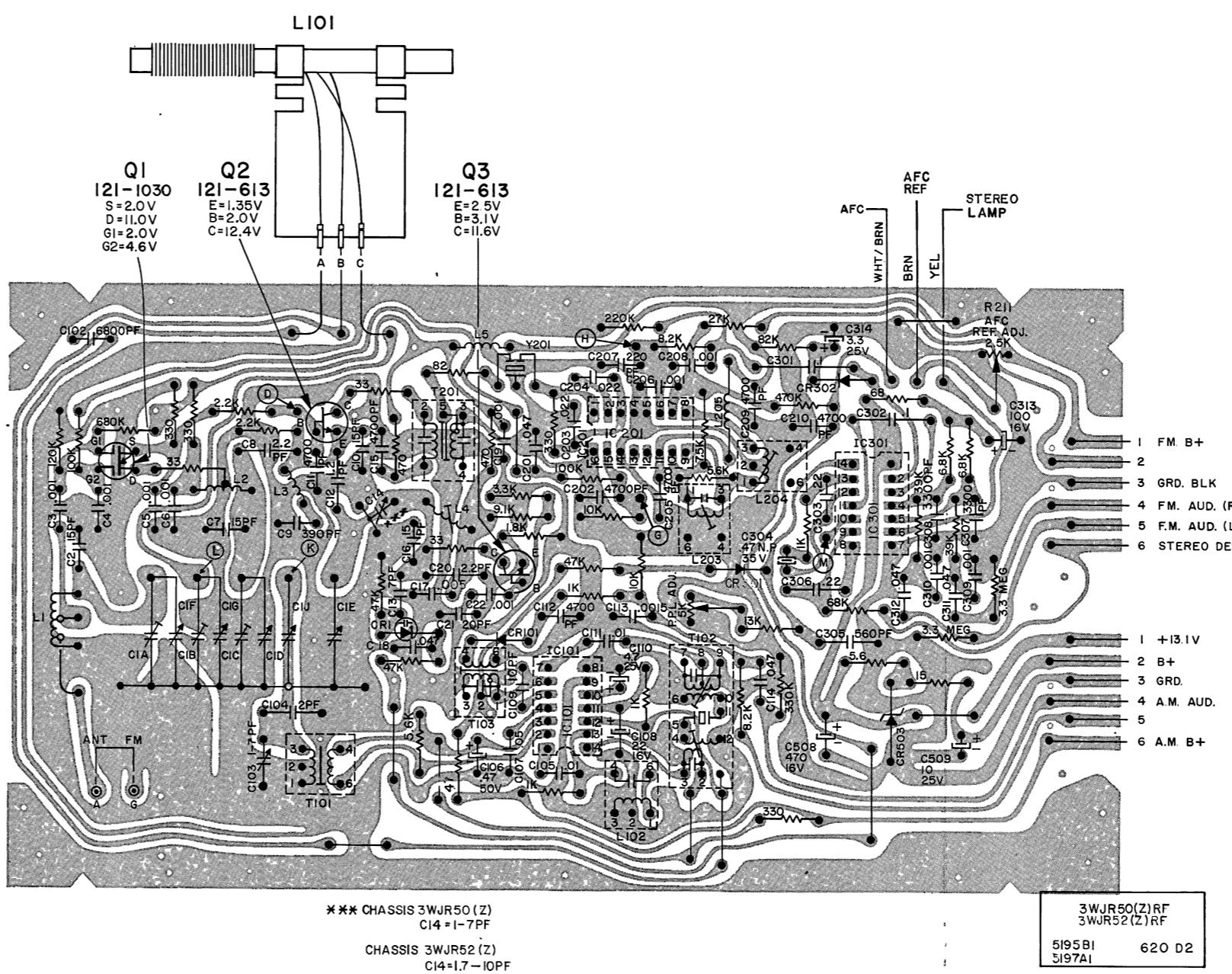
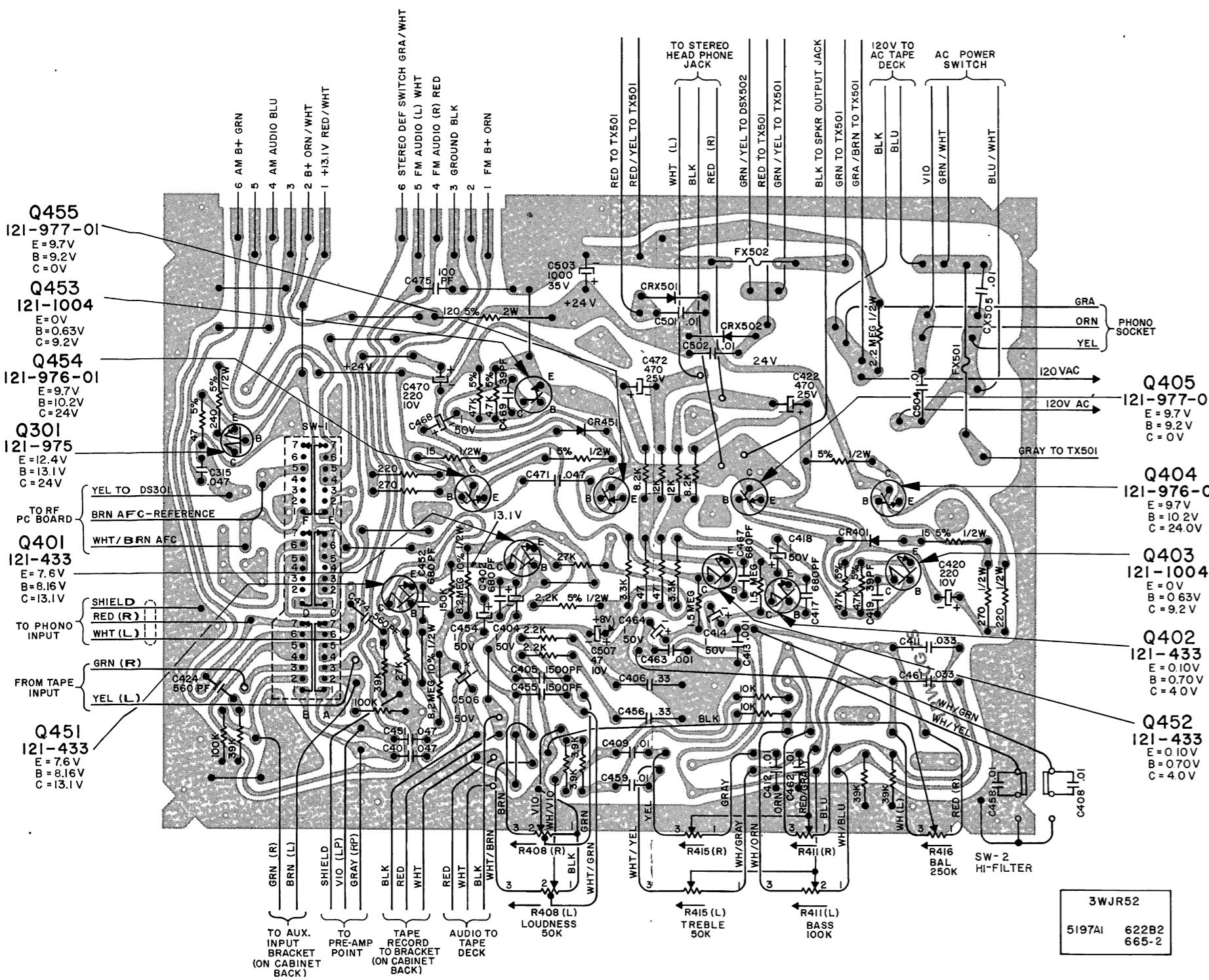
CHASSIS 3WJR50, 50Z – CHASSIS WIRING AND COMPONENTS  
VIEWED FROM FOIL SIDE – AUDIO AND POWER SUPPLY



CHASSIS 3WJR50, 50Z – CHASSIS WIRING AND COMPONENTS  
VIEWED FROM FOIL SIDE – RF/IF/MPX

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
C1A	22-7545	FM ANTENNA TRIMMER	C1D	22-7546	.01 MFD ELECTROLYTIC 50V	R480	63-1757	220 OHM 10% 12W SEE HEADPHONE
C1B	22-7546	FM ANTENNA TRIMMER	C1E	22-7547	.01 MFD ELECTROLYTIC 10V	R481	63-0923-01	4.7K OHM 5% 1W
C1C	22-7547	FM RF TUNING	C1F	22-7548	.01 MFD ELECTROLYTIC 10V	R482	63-1038-02	2.2 MEG OHM 10% 1W
C1G	22-7548	FM RF TUNING	C1H	22-7549	.01 MFD ELECTROLYTIC 10V	R483	63-0923-01	39K OHM 5% 1W
C1I	22-7549	AM ANTENNA TRIMMER	C1J	22-7550	.01 MFD ELECTROLYTIC 10V	R484	63-0923-01	2.2 MEG OHM 10% 1W
C2	22-2542	.01 MFD DISC 500V	C2	22-2543	.01 MFD DISC 500V	R485	63-0923-01	120K OHM 5% 1W
C3	22-2543	.01 MFD DISC 500V	C3	22-2544	.01 MFD DISC 500V	R486	63-0923-01	680K OHM 5% 1W
C4	22-2544	.01 MFD DISC 500V	C4	22-2545	.01 MFD DISC 500V	R487	63-0923-01	150K OHM 5% 1W
C5	22-2545	.01 MFD DISC 500V	C5	22-2546	.01 MFD DISC 500V	R488	63-0923-01	330 OHM 5% 1W
C6	22-2546	.01 MFD DISC 500V	C6	22-2547	.01 MFD DISC 500V	R489	63-0923-01	2.2K OHM 5% 1W
C7	22-2547	.01 MFD DISC 500V	C7	22-2548	.01 MFD DISC 500V	R490	63-0923-01	120K OHM 5% 1W
C8	22-2548	.01 MFD DISC 500V	C8	22-2549	.01 MFD DISC 500V	R491	63-0923-01	39K OHM 5% 1W
C9	22-2549	.01 MFD DISC 500V	C9	22-2550	.01 MFD DISC 500V	R492	63-0923-01	120K OHM 5% 1W
C10	22-2550	.01 MFD DISC 500V	C10	22-2551	.01 MFD DISC 500V	R493	63-0923-01	39K OHM 5% 1W
C11	22-2551	.01 MFD DISC 500V	C11	22-2552	.01 MFD DISC 500V	R494	63-0923-01	120K OHM 5% 1W
C12	22-2552	.01 MFD DISC 500V	C12	22-2553	.01 MFD DISC 500V	R495	63-0923-01	39K OHM 5% 1W
C13	22-2553	.01 MFD DISC 500V	C13	22-2554	.01 MFD DISC 500V	R496	63-0923-01	120K OHM 5% 1W
C14	22-2554	.01 MFD DISC 500V	C14	22-2555	.01 MFD DISC 500V	R497	63-0923-01	39K OHM 5% 1W
C15	22-2555	.01 MFD DISC 500V	C15	22-2556	.01 MFD DISC 500V	R498	63-0923-01	120K OHM 5% 1W
C16	22-2556	.01 MFD DISC 500V	C16	22-2557	.01 MFD DISC 500V	R499	63-0923-01	39K OHM 5% 1W
C17	22-2557	.01 MFD DISC 500V	C17	22-2558	.01 MFD DISC 500V	R500	63-0923-01	120K OHM 5% 1W
C18	22-2558	.01 MFD DISC 500V	C18	22-2559	.01 MFD DISC 500V	R501	63-0923-01	39K OHM 5% 1W
C19	22-2559	.01 MFD DISC 500V	C19	22-2560	.01 MFD DISC 500V	R502	63-0923-01	120K OHM 5% 1W
C20	22-2560	.01 MFD DISC 500V	C20	22-2561	.01 MFD DISC 500V	R503	63-0923-01	39K OHM 5% 1W
C21	22-2561	.01 MFD DISC 500V	C21	22-2562	.01 MFD DISC 500V	R504	63-0923-01	120K OHM 5% 1W
C22	22-2562	.01 MFD DISC 500V	C22	22-2563	.01 MFD DISC 500V	R505	63-0923-01	39K OHM 5% 1W
C23	22-2563	.01 MFD DISC 500V	C23	22-2564	.01 MFD DISC 500V	R506	63-0923-01	120K OHM 5% 1W
C24	22-2564	.01 MFD DISC 500V	C24	22-2565	.01 MFD DISC 500V	R507	63-0923-01	39K OHM 5% 1W
C25	22-2565	.01 MFD DISC 500V	C25	22-2566	.01 MFD DISC 500V	R508	63-0923-01	120K OHM 5% 1W
C26	22-2566	.01 MFD DISC 500V	C26	22-2567	.01 MFD DISC 500V	R509	63-0923-01	39K OHM 5% 1W
C27	22-2567	.01 MFD DISC 500V	C27	22-2568	.01 MFD DISC 500V	R510	63-0923-01	120K OHM 5% 1W
C28	22-2568	.01 MFD DISC 500V	C28	22-2569	.01 MFD DISC 500V	R511	63-0923-01	39K OHM 5% 1W
C29	22-2569	.01 MFD DISC 500V	C29	22-2570	.01 MFD DISC 500V	R512	63-0923-01	120K OHM 5% 1W
C30	22-2570	.01 MFD DISC 500V	C30	22-2571	.01 MFD DISC 500V	R513	63-0923-01	39K OHM 5% 1W
C31	22-2571	.01 MFD DISC 500V	C31	22-2572	.01 MFD DISC 500V	R514	63-0923-01	120K OHM 5% 1W
C32	22-2572	.01 MFD DISC 500V	C32	22-2573	.01 MFD DISC 500V	R515	63-0923-01	39K OHM 5% 1W
C33	22-2573	.01 MFD DISC 500V	C33	22-2574	.01 MFD DISC 500V	R516	63-0923-01	120K OHM 5% 1W
C34	22-2574	.01 MFD DISC 500V	C34	22-2575	.01 MFD DISC 500V	R517	63-0923-01	39K OHM 5% 1W
C35	22-2575	.01 MFD DISC 500V	C35	22-2576	.01 MFD DISC 500V	R518	63-0923-01	120K OHM 5% 1W
C36	22-2576	.01 MFD DISC 500V	C36	22-2577	.01 MFD DISC 500V	R519	63-0923-01	39K OHM 5% 1W
C37	22-2577	.01 MFD DISC 500V	C37	22-2578	.01 MFD DISC 500V	R520	63-0923-01	120K OHM 5% 1W
C38	22-2578	.01 MFD DISC 500V	C38	22-2579	.01 MFD DISC 500V	R521	63-0923-01	39K OHM 5% 1W
C39	22-2579	.01 MFD DISC 500V	C39	22-2580	.01 MFD DISC 500V	R522	63-0923-01	120K OHM 5% 1W
C40	22-2580	.01 MFD DISC 500V	C40	22-2581	.01 MFD DISC 500V	R523	63-0923-01	39K OHM 5% 1W
C41	22-2581	.01 MFD DISC 500V	C41	22-2582	.01 MFD DISC 500V	R524	63-0923-01	120K OHM 5% 1W
C42	22-2582	.01 MFD DISC 500V	C42	22-2583	.01 MFD DISC 500V	R525	63-0923-01	39K OHM 5% 1W
C43	22-2583	.01 MFD DISC 500V	C43	22-2584	.01 MFD DISC 500V	R526	63-0923-01	120K OHM 5% 1W
C44	22-2584	.01 MFD DISC 500V	C44	22-2585	.01 MFD DISC 500V	R527	63-0923-01	39K OHM 5% 1W
C45	22-2585	.01 MFD DISC 500V	C45	22-2586	.01 MFD DISC 500V	R528	63-0923-01	120K OHM 5% 1W
C46	22-2586	.01 MFD DISC 500V	C46	22-2587	.01 MFD DISC 500V	R529	63-0923-01	39K OHM 5% 1W
C47	22-2587	.01 MFD DISC 500V	C47	22-2588	.01 MFD DISC 500V	R530	63-0923-01	120K OHM 5% 1W
C48	22-2588	.01 MFD DISC 500V	C48	22-2589	.01 MFD DISC 500V	R531	63-0923-01	39K OHM 5% 1W
C49	22-2589	.01 MFD DISC 500V	C49	22-2590	.01 MFD DISC 500V	R532	63-0923-01	120K OHM 5% 1W
C50	22-2							

CHASSIS 3WJR51, 51Z								
ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
C1A	22-7134	F.M. DETECTOR TRIMMER	C462	22-2530	1 MFD ELECTROLYTIC 50V	R451	63-99224-05	8.2 MEG OHM 5% (ALT 63-7950 1/2W 10%)
C1B	22-7135	F.M. DETECTOR TUNING	C463	22-2530	680 PF DISC 500V	R453	63-99224-05	27K OHM 5% (ALT 63-7845 1/2W 10%)
C1D	22-7136	F.M. ANTENNA TRIMMER	C465	22-7143	1 MFD ELECTROLYTIC 50V	R455	63-99224-05	33K OHM 5% (ALT 63-7848 1/2W 10%)
C1E	22-7137	A.M. ANTENNA TUNING	C466	22-2530	680 PF DISC 500V	R457	63-99224-05	22K OHM 5% (ALT 63-7841 1/2W 10%)
C1F	22-7138	A.M. ANTENNA TRIMMER	C467	22-2703	220 PF DISC 500V	R460	63-99224-05	220K OHM 5% (ALT 63-7883 1/2W 10%)
C1G	22-7139	A.M. OSCILLATOR TRIMMER	C470	22-7150-09	220 MFD ELECTROLYTIC 10V	R461	63-99224-05	68 OHM 5% (ALT 63-7738 1/2W 10%)
C1H	22-7140	F.M. ANTENNA TRIMMER	C471	22-7150-11	220 MFD ELECTROLYTIC 25V	R463	63-9921-84	3.3K OHM 5% (ALT 63-7879 1/2W 10%)
C1J	22-7141	F.M. ANTENNA TUNING	C473	22-6447-01	.047 MFD MYLAR 100V	R465	63-9921-84	68 OHM 5% (ALT 63-7738 1/2W 10%)
C2	22-2481	8 PF DISC 20.5% 50V	C475	22-6447-01	.047 MFD MYLAR 100V	R466	63-9921-84	47K OHM 5% (ALT 63-7878 1/2W 10%)
C3	22-2729	.001 MFD DISC 25V	C501	22-4617	.01 MFD DISC 500V	R467	63-9921-87	3.3K OHM 5% (ALT 63-7811 1/2W 10%)
C4	22-2730	.001 MFD DISC 25V	C502	22-4617	.01 MFD DISC 500V	R468	63-9921-87	8.2K OHM 5% (ALT 63-7824 1/2W 10%)
C5	22-3375	10 PF DISC 2.5% 50V	C503	22-4617	.01 MFD DISC 500V	R469	63-9946-55	220K OHM 1/2W 5% (ALT 63-7757 1/2W 10%)
C6	22-3080	.0000 PF ± 30% 25V	C504	22-7150-07	.047 MFD ELECTROLYTIC 10V	R470	63-9946-55	15 OHM 1/2W 5% (ALT 63-7758 1/2W 10%)
C7	22-5627	.0000 PF ± 30% 500V	C505	22-6447-01	.047 MFD MYLAR 100V	R471	63-9946-55	15 OHM 1/2W 5% (ALT 63-7707 1/2W 5%)
C8	22-5679	3.3 PF DISC ± 25% 25V	C506	22-6447-01	.047 MFD MYLAR 100V	R472	63-10565	120K OHM 5% (ALT 63-7831 1/2W 10%)
C9	22-5680	7.0 PF DISC ± 25% 25V	C507	22-6447-01	.047 MFD MYLAR 100V	R473	63-10565	120K OHM 5% (ALT 63-7831 1/2W 10%)
C10	22-5678	8.5 PF DISC ± 25% 25V	C508	22-6447-01	.047 MFD DISC 100V	R474	63-10565	220 OHM 1/2W
C11	22-5679	8.5 PF DISC ± 25% 25V	C509	22-6447-01	.047 MFD DISC 100V	R475	63-1757	220 OHM 1/2W
C12	22-7615-10	.047 MFD DISC 50V	C510	22-6447-01	.047 MFD DISC 50V	R476	63-1757	220 OHM 1/2W
C13	22-7615-04	.047 MFD DISC 50V	R1	63-9921-82	300 OHM 5% (ALT 63-7768 1/2W 10%)	R477	63-1757	220 OHM 1/2W
C14	22-7615-04	.047 MFD DISC 50V	R2	63-9921-82	4.7K OHM	R478	63-9946-55	10 OHM 1/2W (ALT 63-7701 1/2W 10%)
C15	22-4841	8 PF DISC 0.5% 500V	R3	63-9921-82	10K OHM 5% (ALT 63-7722 1/2W 20%)	R479	63-9921-82	2.2K OHM 5% (ALT 63-7799 1/2W 10%)
C16	22-7172	.047 MFD DISC 50V	R4	63-9921-82	10K OHM 5% (ALT 63-7722 1/2W 20%)	R480	63-9921-82	10K OHM 5% (ALT 63-7799 1/2W 10%)
C17	22-7172	.047 MFD DISC 50V	R5	63-9921-82	1.8K OHM 5% (ALT 63-10183 7.5% 1/4W 10%)	R481	63-9921-82	10K OHM 5% (ALT 63-7783 1/2W 10%)
C18	22-3177	.390 PF DISC 500V	R6	63-9921-82	1.2K OHM 5% (ALT 63-7831 1/2W 10%)	R482	63-9921-82	10K OHM 5% (ALT 63-7789 1/2W 10%)
C19	22-7172	.047 MFD DISC 50V	R7	63-9921-82	3.3 OHM	R483	63-9921-82	3.3 OHM
C20	22-7172	.047 MFD DISC 50V	R8	63-9921-82	47K OHM 5% (ALT 63-7889 1/2W 20%)	R484	63-9921-82	47K OHM 5% (ALT 63-7787 1/2W 10%)
C21	22-7165-10	.047 MFD DISC 50V	R101	63-1865	82K OHM 1/2W	R485	63-9921-82	15K OHM 5% (ALT 63-7783 1/2W 10%)
C22	22-7165-06	.047 MFD DISC 50V	R102	63-1865	82K OHM 1/2W	R486	63-9921-82	15K OHM 5% (ALT 63-7783 1/2W 10%)
C23	22-5660	.390 MFD 15% 50V STYRENE 125V	R103	63-1865	82K OHM 1/2W	R487	63-1757	10K OHM 5% (ALT 63-7785 1/2W 10%)
C24	22-5619	2 PF N4700 ± 500V	R104	63-1757	1.7K OHM 5% (ALT 63-7785 1/2W 10%)	R488	63-1757	1.7K OHM 5% (ALT 63-7785 1/2W 10%)
C25	22-7165-10	.047 MFD DISC 50V	R105	63-1757	2.2K OHM 1/2W	R489	63-1757	2.2K OHM 1/2W
C26	22-5660	2.7 PF DISC ± 25% 500V	R106	63-1757	2.2K OHM 1/2W	R490	63-1757	2.2K OHM 1/2W
C27	22-5660	4.7 MFD ELECTROLYTIC 50V	R107	63-1757	2.2K OHM 1/2W	R491	63-1757	2.2K OHM 1/2W
C28	22-5660	4.7 MFD ELECTROLYTIC 50V	R201	63-9921-88	680 OHM 5% (ALT 63-7736 1/2W 10%)	R492	63-1757	2.2K OHM 1/2W
C29	22-5660	4.7 MFD ELECTROLYTIC 50V	R202	63-9921-88	270 OHM 5% (ALT 63-7761 1/2W 10%)	R493	63-1757	2.2K OHM 1/2W
C30	22-7181-10	.047 MFD DISC 50V	R203	63-9921-88	470 OHM 5% (ALT 63-7722 1/2W 20%)	R494	63-1757	2.2K OHM 1/2W
C31	22-7181-10	.047 MFD DISC 50V	R204	63-9921-88	10K OHM 5% (ALT 63-7722 1/2W 20%)	R495	63-1757	2.2K OHM 1/2W
C32	22-5681	.660 PF DISC 500V	R205	63-9921-88	47K OHM 5% (ALT 63-7771 1/2W 10%)	R496	63-1757	2.2K OHM 1/2W
C33	22-5681	.660 PF DISC 500V	R206	63-9921-88	10K OHM 5% (ALT 63-7771 1/2W 10%)	R497	63-1757	2.2K OHM 1/2W
C34	22-5681	.660 PF DISC 500V	R207	63-9921-88	2.2K OHM 5% (ALT 63-7799 1/2W 10%)	R498	63-1757	2.2K OHM 1/2W
C35	22-5681	.660 PF DISC 500V	R208	63-9921-88	10K OHM 5% (ALT 63-7799 1/2W 10%)	R499	63-1757	2.2K OHM 1/2W
C36	22-6225-19	1.8 PF DISC ± 25% 500V	R209	63-9921-88	47K OHM 5% (ALT 63-7722 1/2W 20%)	R500	63-1757	2.2K OHM 1/2W
C37	22-5681	.660 PF DISC 500V	R210	63-9921-88	500 OHM 5% (ALT 63-7722 1/2W 20%)	R501	63-1757	2.2K OHM 1/2W
C38	22-5681	.047 MFD DISC 50V	R211	63-9921-88	500 OHM 5% (ALT 63-7722 1/2W 20%)	R502	63-1757	2.2K OHM 1/2W
C39	22-5681	.047 MFD DISC 50V	R212	63-9921-88	470 OHM 5% (ALT 63-7722 1/2W 20%)	R503	63-1757	2.2K OHM 1/2W
C40	22-5681	.047 MFD DISC 50V	R213	63-9921-88	680 PF DISC 500V	R504	63-1757	2.2K OHM 1/2W
C41	22-5681	.047 MFD DISC 50V	R214	63-9921-88	680 PF DISC 500V	R505	63-1757	2.2K OHM 1/2W
C42	22-5681	.047 MFD DISC 50V	R215	63-9921-88	680 PF DISC 500V	R506	63-1757	2.2K OHM 1/2W
C43	22-5681	.047 MFD DISC 50V	R216	63-9921-88	680 PF DISC 500V	R507	63-1757	2.2K OHM 1/2W
C44	22-5681	.047 MFD DISC 50V	R217	63-9921-88	680 PF DISC 500V	R508	63-1757	2.2K OHM 1/2W
C45	22-5681	.047 MFD DISC 50V	R218	63-9922-38	100K OHM 5% (ALT 63-7869 1/2W 10%)	R509	63-1757	2.2K OHM 1/2W
C46	22-5681	.047 MFD DISC 50V	R219	63-9922-38	100K OHM 5% (ALT 63-7869 1/2W 10%)	R510	63-1757	2.2K OHM 1/2W
C47	22-5681	.047 MFD DISC 50V	R220	63-9922-38	100K OHM 5% (ALT 63-7869 1/2W 10%)	R511	63-1757	2.2K OHM 1/2W
C48	22-5681	.047 MFD DISC 50V	R221	63-1810	3.9K OHM 5%	R512	63-1757	2.2K OHM 1/2W
C49	22-5681	.047 MFD DISC 50V	R222	63-9921-88	500 OHM 5% (ALT 63-7722 1/2W 20%)	R513	63-1757	2.2K OHM 1/2W
C50	22-5681	.047 MFD DISC 50V	R223	63-9921-88	500 OHM 5% (ALT 63-			



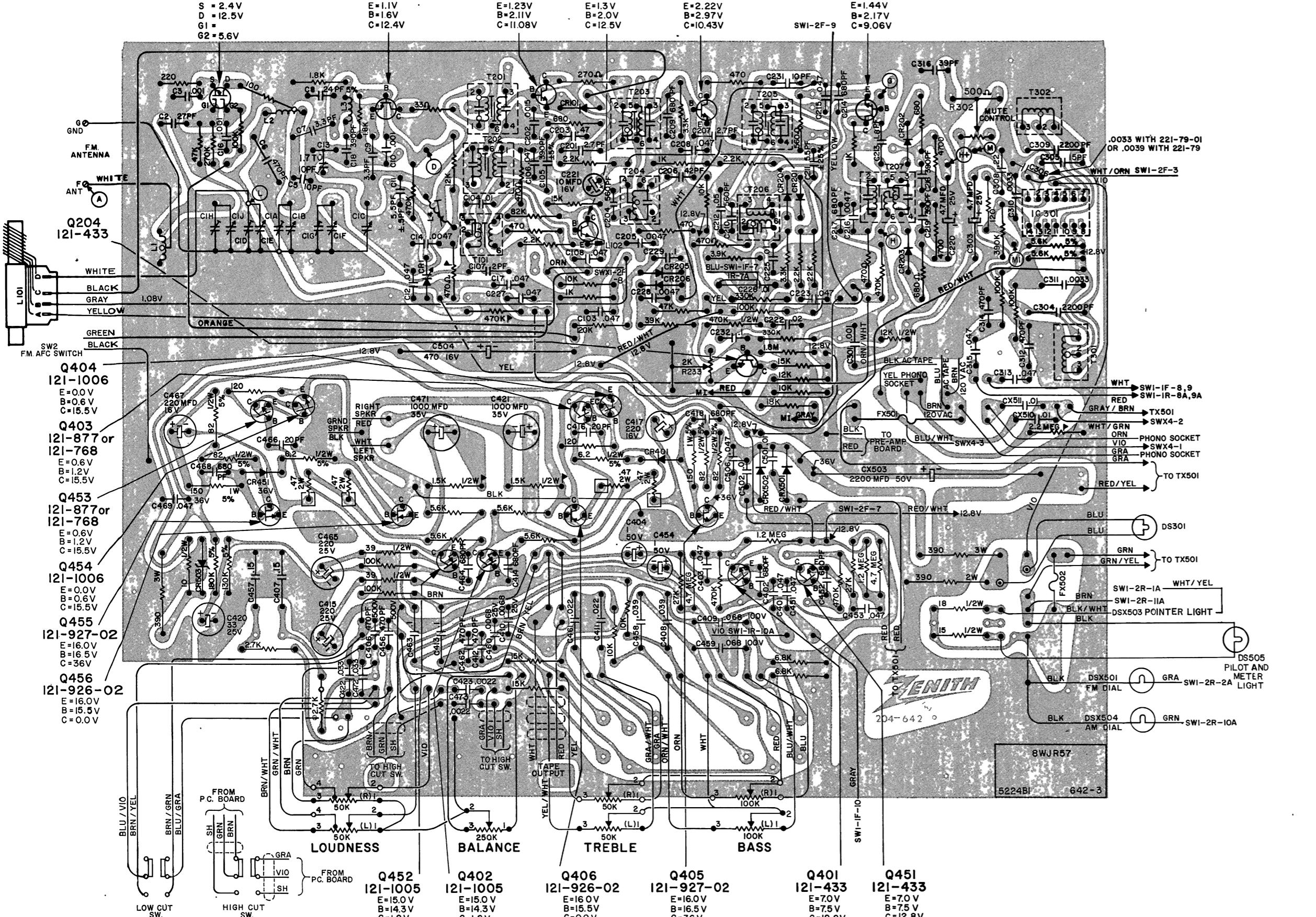
CHASSIS 3WJR52, 3WJR52Z									
ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION	
C1A		FM ANTENNA TRIMMER	CX030*	2217-6142-1	1000 MFD ELECTROLYTIC 5V	R471	63-8922-12	47K OHM 5% 1/4W	
C1B	22-7455	AM ANTENNA TUNING	CX034*	22-7431-07	24 MFD DISC 150VAC	R472	63-8922-13	4.7K OHM 5% 1/4W	
C1C	ON	FM RF TRIMMER	CX058*	22-7301-07	01 MFD DISC 150VAC	R473	63-8922-14	10K OHM 5% 1/4W	
C1D	300M52	FM ANTENNA TUNING	C508	22-7153	1 MFD ELECTROLYTIC 50V	R474	63-8946-56	220 OHM 5% 1/2W	
C1E	22-5758	FM OSCILLATOR TUNING	C509	22-7153-07	47 MFD ELECTROLYTIC 10V	R475	63-8946-58	270 OHM 5% 1/2W	
C1F	ON	AM ANTENNA TRIMMER	C509	22-7151-11	1000 MFD ELECTROLYTIC 5V	R476	63-8922-28	15 OHM 5% 1/2W	
C1G	3WJR52Z	AM ANTENNA TUNING	C509	22-7152-04	10 MFD ELECTROLYTIC 25V	R477	63-1058-02	100 OHM 5% 1/2W	
C1J		AM OSCILLATOR TUNING	R1	63-8922-22	120K OHM 5% 1/4W	R478	63-8921-02	120K OHM 5% 1/4W	
C2	22-5842	15 PF DISC ±5% 500V	R2	63-8922-20	100K OHM 5% 1/4W	R480	63-757	220 OHM 10% 1/2W	
C3	22-5727	100 PF DISC 500V	R3	63-8921-20	330K OHM 5% 1/4W	R481	63-8922-10	39K OHM 5% 1/4W	
C4	22-5727	.001 MFD DISC 500V	R3	63-8922-20	680K OHM 5% 1/4W				
C5	22-5729	.001 MFD DISC 25V	R5	63-8922-20	33 OHM 10% 1/4W				
C6	22-5729	.001 MFD DISC 25V	R6	63-8921-20	330K OHM 5% 1/4W				
C7	22-5842	15 PF DISC ±5% 500V	R7	63-8921-20	2.2K OHM 5% 1/4W				
C8	22-5726	2.2 PF DISC ±5% 500V	R8	63-8921-20	2.2K OHM 5% 1/4W				
C9	22-5717	.390 PF DISC 500V	R9	63-8921-20	33 OHM 5% 1/4W				
C10	22-5717	15 PF DISC ±5% 500V	R10	63-8921-20	100K OHM 5% 1/4W				
C11	22-7615	4700 PF DISC 50V	R11	63-4171	470 OHM 10% 1/4W				
C12	22-7615	1.2M PF DISC ±5% 500V	R12	63-8922-12	47K OHM 5% 1/4W				
C13	22-6344	7.7M PF ±5.5% 100V 500V	R13	63-8922-12	47K OHM 5% 1/4W				
C14	22-7460	1.0 PF TO 7 PF CERAMIC TRIMMER	R14	63-8922-12	0.01 MFD 10% 1/4W				
C15	22-7615	4700 PF DISC 50V	R15	63-4122	33 OHM 10% 1/4W				
C16	22-7615	15 PF DISC ±5% 500V	R16	63-8921-20	3.3K OHM 5% 1/4W				
C17	22-5808	.005 MFD DISC 25V	R17	63-8921-20	1.8K OHM 5% 1/4W				
C18	22-7610-10	.047 MFD DISC 50V	R101	63-8922-10	5.8K OHM 5% 1/4W				
C19	22-7279	.001 MFD DISC 25V	R102	63-8921-22	1K OHM 5% 1/4W				
C20	22-7621-26	.001 MFD DISC 50V	R103	63-8921-22	5.8K OHM 5% 1/4W				
C21	22-7621-17	.001 MFD DISC 25V	R105	63-8921-22	1.2K OHM 5% 1/4W				
C22	22-7279	.001 MFD DISC 25V	R106	63-8921-22	10K OHM 5% 1/4W				
C102	22-7613-12	8800 PF DISC 50V	R107	63-8922-10	330K OHM 5% 1/4W				
C103	22-7460	1 PF TO 1 PF AM OSCILLATOR TRIMMER	R108	63-8922-22	330K OHM 5% 1/4W				
C104	22-4819	2 PF ±2.5% PF N4700 TUB. 600V	R109	63-8921-20	47 OHM 5% 1/4W				
C105	22-7615-08	.001 MFD DISC 50V	R201	63-8922-10	82 OHM 5% 1/4W				
C106	22-7153-25	47 MFD ELECTROLYTIC 50V	R202	63-8922-20	100K OHM 5% 1/4W				
C107	22-7153-25	47 MFD ELECTROLYTIC 50V	R203	63-8922-20	330K OHM 5% 1/4W				
C108	22-7151-05	22 MFD ELECTROLYTIC 16V	R204	63-8921-20	330K OHM 5% 1/4W				
C109	22-3675	10 PF DISC ±5% 500V	R205	63-8921-20	5.8K OHM 5% 1/4W				
C110	22-7615-08	.001 MFD DISC 50V	R206	63-8921-20	7.5K OHM 5% 1/4W				
C111	22-7613-20	4700 PF DISC 50V	R207	63-8921-20	220K OHM 5% 1/4W				
C112	22-7613-20	220 PF DISC 50V	R208	63-8922-06	27K OHM 5% 1/4W				
C113	22-7614-26	.015 MFD DISC 50V	R209	63-8922-06	47K OHM 5% 1/4W				
C114	22-7615-10	.047 MFD DISC 50V	R210	63-8922-35	47K OHM 5% 1/4W				
C201	22-7615-10	.047 MFD DISC 50V	R211	63-10651-02	2.5K OHM 5%K REF ADJUST				
C202	22-7615-04	.047 MFD DISC 50V	R301	63-8922-12	47K OHM 5% 1/4W				
C203	22-7151-04	.022 MFD DISC 50V	R302	63-10651-03	5K OHM P.L.L. ADJUST				
C204	22-7151-04	.022 MFD DISC 50V	R312	63-8921-24	64 OHM 5% 1/4W				
C205	22-7615-04	.022 MFD DISC 50V	R304	63-8921-22	1K OHM 5% 1/4W				
C206	22-7279	.001 MFD DISC 25V	R305	63-8922-18	68K OHM 5% 1/4W				
C207	22-2703	220 PF DISC 50V	R306	63-8921-22	6.8K OHM 5% 1/4W				
C208	22-2703	220 PF DISC 50V	R307	63-8921-22	68K OHM 5% 1/4W				
C209	22-7615-04	.047 MFD DISC 50V	R308	63-8922-10	39K OHM 5% 1/4W				
C210	22-7615-04	.047 MFD DISC 50V	R309	63-8922-10	39K OHM 5% 1/4W				
C301	22-5807	1 MFD MYLAR 20% 50V	R310	63-8924-06	3.3 MEG OHM 10% 1/4W				
C302	22-5807	1 MFD MYLAR 20% 50V	R311	63-8921-20	100K OHM 5% 1/4W				
C303	22-3527	.22 MFD DISC 12V	R312	63-8921-24	64 OHM 5% 1/4W				
C304	22-7408	.47 MFD NE ELECTROLYTIC 35V	R313	63-9946-57	240 OHM 5% 1/2W				
C305	22-7408	.47 MFD NE ELECTROLYTIC 35V	R314	63-8922-18	82K OHM 5% 1/4W				
C306	22-3527	.22 MFD DISC 12V	R315	63-8921-20	47 OHM 5% 1/4W				
C307	22-7613-18	3300 PF DISC 50V	R401	63-7950	8.2 MEG OHM 10% 1/2W				
C308	22-7613-18	3300 PF DISC 50V	R405	63-8922-06	2.2K OHM 5% 1/4W				
C309	22-7613-18	.01 MFD DISC 25V	R407	63-8921-20	100K OHM 5% 1/4W				
C310	22-7613-18	.01 MFD DISC 25V	R408R	63-10189-02	50M OHM LOUDNESS CONTROL DIAL				
C311	22-7615-10	.047 MFD DISC 50V	R409	63-8921-26	3.9K OHM 5% 1/4W				
C312	22-7615-10	.047 MFD DISC 50V	R410	63-8921-26	10K OHM 5% 1/4W				
C313	22-7615-08	.100 MFD ELECTROLYTIC 16V	R411R	63-8982-20	100K OHM BASS CONTROL DUAL				
C314	22-7612-02	.3 M FD ELECTROLYTIC 25V	R412	63-8922-02	100K OHM 5% 1/4W				
C401	22-7615-10	.047 MFD DISC 50V	R421	63-8922-12	47K OHM 5% 1/4W				
C402	22-7615-10	.047 MFD DISC 50V	R422	63-8921-88	47K OHM 5% 1/4W				
C404	22-7153	1 MFD ELECTROLYTIC 16V	R423	63-8921-88	47K OHM 5% 1/4W				
C405	22-7613-14	1500 PF DISC 50V	R424	63-8946-58	220 OHM 5% 1/2W				
C406	22-7588	33 MFD MYLAR 50V	R425	63-8946-58	270 OHM 5% 1/2W				
C407	22-7615-24	.01 MFD DISC 20% 50V	R426	63-8946-28	15 OHM 5% 1/2W				
C409	22-7614-24	.01 MFD DISC 20% 50V	R427	63-8921-88	100K OHM 5% 1/4W				
C411	22-5883	.033 MFD MYLAR 100V	R428	63-8921-88	100K OHM 5% 1/4W				
C412	22-7614-24	.01 MFD DISC 50V	R429	63-8924-48	1.5 MEG OHM 10% 1/4W				
C413	22-5868	.022 MFD DISC 20% 50V	R430	63-8924-48	3.3K OHM 5% 1/4W				
C414	22-2939	680 PF DISC 50V	R431	63-8924-48	47 OHM 5% 1/4W				
C415	22-7153	1 MFD ELECTROLYTIC 50V	R455	63-8922-06	27K OHM 5% 1/4W				
C416	22-7613-24	.01 MFD DISC 20% 50V	R456	63-8922-06	47K OHM 5% 1/4W				
C417	22-2939	100 PF DISC 50V	R457	63-8921-80	2.2K OHM 5% 1/4W				
C418	22-7153	1 MFD ELECTROLYTIC 50V	R458	63-8921-80	10K OHM 5% 1/4W				
C419	22-7153	39 PF DISC 5% 50V	R459	63-8921-80	100K OHM 5% 1/4W				
C420	22-7153	100 PF DISC 50V	R460	63-8921-80	100K OHM 5% 1/4W				
C421	22-7152-11	470 PF DISC ELECTROLYTIC 25V	R461	63-8922-02	100K OHM 5% 1/4W				
C422	22-3362	.660 PF DISC 500V	R462	63-8922-02	100K OHM 5% 1/4W				
C423	22-3362	100 PF DISC 500V	R464	63-8922-10	39K OHM 5% 1/4W				
C424	22-3362	100 PF DISC 500V	R465	63-8922-10	15K OHM 5% 1/4W				
C425	22-3362	100 PF DISC 500V	R466	63-8922-10	100K OHM 5% 1/4W				
C426	22-3362	100 PF DISC 500V	R467	63-8924-48	1.5 MEG OHM 10% 1/4W				
C427	22-3362	100 PF DISC 500V	R468	63-8921-84	3.3K OHM 5% 1/4W				
C428	22-3362	100 PF DISC 500V	R469	63-8921-84	100K OHM 5% 1/4W				
C429	22-3362	100 PF DISC 500V	R470	63-8920-09	220 MFD ELECTROLYTIC 10V				
C430	22-3362	100 PF DISC 500V	R471	63-8947-01	.047 MFD MYLAR 100V				
C431	22-3362	100 PF DISC 500V	R472	63-8947-01	.033 MFD MYLAR 200V				
C432	22-3362	100 PF DISC 500V	R473	63-8947-01	.01 MFD DISC 20% 50V				
C433	22-3362	100 PF DISC 500V	R474	63-8947-01	.001 MFD DISC 20% 50V				
C434	22-3362	100 PF DISC 500V	R475	63-8947-01	.001 MFD DISC 20% 50V				
C435	22-3362	100 PF DISC 500V	R476	63-8947-01	.001 MFD DISC 20% 50V				
C436	22-3362	100 PF DISC 500V	R477	63-8947-01	.001 MFD DISC 20% 50V				
C437	22-3362	100 PF DISC 500V	R478	63-8947-01	.001 MFD DISC 20% 50V				
C438	22-3362	100 PF DISC 500V	R479	63-8947-01	.001 MFD DISC 20% 50V				
C439	22-3362	100 PF DISC 500V	R480	63-8947-01	.001 MFD DISC 20% 50V				
C440	22-3362	100 PF DISC 500V	R481	63-8947-01	.001 MFD DISC 20% 50V				
C441	22-3362	100 PF DISC 500V	R482	63-8947-01	.001 MFD DISC 20% 50V				
C442	22-3362	100 PF DISC 500V	R483	63-8947-01	.001 MFD DISC 20% 50V				
C443	22-3362	100 PF DISC 500V	R484	63-8947-01	.001 MFD DISC 20% 50V				
C444	22-3362	100 PF DISC 500V	R485	63-8947-01	.001 MFD DISC 20% 50V				
C445	22-3362	100 PF DISC 500V	R486	63-8947-01	.001 MFD DISC 20% 50V				
C446	22-3362	100 PF DISC 500V	R487	63-8947-01	.001 MFD DISC 20% 50V				
C447	22-3362	100 PF DISC 500V	R488	63-8947-01	.001 MFD DISC 20% 50V				
C448	22-3362	100 PF DISC 500V	R489	63-8947-01	.001 MFD DISC 20% 50V				
C449	22-3362	100 PF DISC 500V	R490	63-8947-01	.001 MFD DISC 20% 50V				
C450	22-3362	100 PF DISC 500V	R491	63-8947-01	.001 MFD DISC 20% 50V				
C451	22-3362	100 PF DISC 500V	R492	63-8947-01	.001 MFD DISC 20% 50V				
C452	22-3362	100 PF DISC 500V	R493	63-8947-01	.001 MFD DISC 20% 50V				
C453	22-3362	100 PF DISC 500V	R494	63-8947-01	.001 MFD DISC 20% 50V				
C454	22-3362	100 PF DISC 500V	R495	63-8947-01	.001 MFD DISC 20% 50V				
C455	22-3362	100 PF DISC 500V	R496	63-8947-01	.001 MFD DISC 20% 50V				
C456	22-3362	100 PF DISC 500V	R497	63-8947-01	.001 MFD DISC 20% 50V				
C457	22-3362	100 PF DISC 500V	R498	63-8947-01	.001 MFD DISC 20% 50V				
C458	22-3362	100 PF DISC 500V	R499	63-8947-01	.001 MFD DISC 20% 50V				
C459	22-3362	100 PF DISC 500V	R500	63-8947-01	.001 MFD DISC 20% 50V				
C460	22-3362	100 PF DISC 500V	R501	63-8947-01	.001 MFD DISC 20% 50V				
C461									

## ASSIS 3WJR52, 52Z – CHASSIS WIRING AND COMPONENTS VIEWED FROM FOIL SIDE – AUDIO AND POWER SUPPLY

## **3WJR52, 52Z – CHASSIS WIRING AND COMPONENTS VIEWED FROM FOIL SIDE – RF/IF/MPX**

### CHASSIS 8WJR56

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
C1A		F.M. DETECTOR TRIMMER	C764	22-6965	1 MFD MYLAR 50V	R701	63-9921-24	15K OHM CHM
C1B		F.M. DETECTOR TUNING	C765	22-3283	100 PFD DISC 500V	R710	63-9921-18	1K OHM
C1D		A.M. ANTENNA TRIMMER	C766	22-7602	1800 PFD DISC 500V	R711	63-9921-18	4.7K OHM
C1E		A.M. ANTENNA TUNING	C767	22-3284	100 PFD DISC 500V	R712	63-9921-18	1.2K OHM
C1F		A.M. OSCILLATOR TRIMMER	C768	22-3412	820 PFD DISC 500V	R713	63-9921-90	5.6K OHM
C1G		A.M. OSCILLATOR TUNING	R1	63-9921-56	220 OHM 5%	R751	63-9922-20	100K OHM
C1H		F.M. ANTENNA TRIMMER	R2	63-9922-20	100K OHM 5%	R752	63-9921-72	100K OHM
C1J		F.M. ANTENNA TUNING	R3	63-9921-64	470 OHM 5%	R753	63-9949	8.2 MEG OHM 1/2W
C2	22-7622-20	27 PF DISC 100V	R4	63-9921-56	100K OHM 5%	R754	63-9922-20	100K OHM
C3	22-7279	.001 MFD DISC 25V	R5	63-9921-78	1.8K OHM 5%	R755	63-9922-20	33K OHM
C4	22-7279	200 PF DISC 100V	R6	63-9921-36	30 OHM 5%	R757	63-9922-20	TRAP COIL 10.7 MHZ
C5	22-3541	3.3 PF GIMMICK $\pm$ 5%	R7	63-9921-36	30 OHM 5%	R758	63-9922-20	2.7 MEG OHM
C6	22-7279	200 PF DISC 100V	R8	63-9921-36	470K OHM 5%	R759	63-9922-20	150K OHM
C7	22-3541	3.3 PF GIMMICK $\pm$ 5%	R9	63-9921-36	470K OHM 5%	R760	63-9922-20	1K OHM
C8	22-5871	470 PF DISC 100V	R10	63-9922-30	270K OHM 5%			
C9	22-7279	1.7 TO 10 PF CERAMIC TRIMMER	R11	63-9922-30	270K OHM 5%			
C10	22-4855	1.7 TO 10 PF CERAMIC TRIMMER	R12	63-9921-72	1K OHM 5%			
C11	22-7279	1.7 TO 10 PF CERAMIC TRIMMER	R13	63-9921-56	100K OHM 5%			
C12	22-4855	1.7 TO 10 PF CERAMIC TRIMMER	R14	63-9921-56	100K OHM 5%			
C13	22-7279	1.7 TO 10 PF CERAMIC TRIMMER	R15	63-9921-56	100K OHM 5%			
C14	22-7279	1.7 TO 10 PF CERAMIC TRIMMER	R16	63-9921-56	100K OHM 5%			
C15	22-7279	1.7 TO 10 PF CERAMIC TRIMMER	R17	63-9921-56	100K OHM 5%			
C16	22-7279	1.7 TO 10 PF CERAMIC TRIMMER	R18	63-9921-56	100K OHM 5%			
C17	22-7615-10	.047 MFD DISC 50V	R19	63-9921-56	100K OHM 5%			
C18	22-7615-10	.047 MFD DISC 50V	R20	63-9921-56	100K OHM 5%			
C19	22-7615-10	.047 MFD DISC 50V	R21	63-9921-56	100K OHM 5%			
C20	22-7615-10	.047 MFD DISC 50V	R22	63-9921-56	100K OHM 5%			
C21	22-5860	2.7 PF DISC $\pm$ 2%	R23	63-9921-56	100K OHM 5%			
C22	22-5483	.047 MFD DISC 50V	R24	63-9921-56	100K OHM 5%			
C23	22-5487	.047 MFD DISC 3V	R25	63-9921-56	100K OHM 5%			
C24	22-5487	.047 MFD DISC 3V	R26	63-9921-56	100K OHM 5%			
C25	22-7615-10	.047 MFD DISC 50V	R27	63-9921-56	100K OHM 5%			
C26	22-7615-10	.047 MFD DISC 50V	R28	63-9921-56	100K OHM 5%			
C27	22-7615-10	.047 MFD DISC 50V	R29	63-9921-56	100K OHM 5%			
C28	22-7615-10	.047 MFD DISC 50V	R30	63-9921-56	100K OHM 5%			
C29	22-7615-10	.047 MFD DISC 50V	R31	63-9921-56	100K OHM 5%			
C30	22-7615-10	.047 MFD DISC 50V	R32	63-9921-56	100K OHM 5%			
C31	22-3770	5.5 PF DISC $\pm$ 2%	R33	63-9921-56	100K OHM 5%			
C32	22-7615-10	.047 MFD DISC 50V	R34	63-9921-56	100K OHM 5%			
C33	22-7615-10	.047 MFD DISC 50V	R35	63-9921-56	100K OHM 5%			
C34	22-7615-10	.047 MFD DISC 50V	R36	63-9921-56	100K OHM 5%			
C35	22-7615-10	.047 MFD DISC 50V	R37	63-9921-56	100K OHM 5%			
C36	22-7615-10	.047 MFD DISC 50V	R38	63-9921-56	100K OHM 5%			
C37	22-7615-10	.047 MFD DISC 50V	R39	63-9921-56	100K OHM 5%			
C38	22-7615-10	.047 MFD DISC 50V	R40	63-9921-56	100K OHM 5%			
C39	22-7615-10	.047 MFD DISC 50V	R41	63-9921-56	100K OHM 5%			
C40	22-7615-10	.047 MFD DISC 50V	R42	63-9921-56	100K OHM 5%			
C41	22-7615-10	.047 MFD DISC 50V	R43	63-9921-56	100K OHM 5%			
C42	22-7615-10	.047 MFD DISC 50V	R44	63-9921-56	100K OHM 5%			
C43	22-7615-10	.047 MFD DISC 50V	R45	63-9921-56	100K OHM 5%			
C44	22-7615-10	.047 MFD DISC 50V	R46	63-9921-56	100K OHM 5%			
C45	22-7615-10	.047 MFD DISC 50V	R47	63-9921-56	100K OHM 5%			
C46	22-7615-10	.047 MFD DISC 50V	R48	63-9921-56	100K OHM 5%			
C47	22-7615-10	.047 MFD DISC 50V	R49	63-9921-56	100K OHM 5%			
C48	22-7615-10	.047 MFD DISC 50V	R50	63-9921-56	100K OHM 5%			
C49	22-7615-10	.047 MFD DISC 50V	R51	63-9921-56	100K OHM 5%			
C50	22-7615-10	.047 MFD DISC 50V	R52	63-9921-56	100K OHM 5%			
C51	22-7615-10	.047 MFD DISC 50V	R53	63-9921-56	100K OHM 5%			
C52	22-7615-10	.047 MFD DISC 50V	R54	63-9921-56	100K OHM 5%			
C53	22-7615-10	.047 MFD DISC 50V	R55	63-9921-56	100K OHM 5%			
C54	22-7615-10	.047 MFD DISC 50V	R56	63-9921-56	100K OHM 5%			
C55	22-7615-10	.047 MFD DISC 50V	R57	63-9921-56	100K OHM 5%			
C56	22-7615-10	.047 MFD DISC 50V	R58	63-9921-56	100K OHM 5%			
C57	22-7615-10	.047 MFD DISC 50V	R59	63-9921-56	100K OHM 5%			
C58	22-7615-10	.047 MFD DISC 50V	R60	63-9921-56	100K OHM 5%			
C59	22-7615-10	.047 MFD DISC 50V	R61	63-9921-56	100K OHM 5%			
C60	22-7615-10	.047 MFD DISC 50V	R62	63-9921-56	100K OHM 5%			
C61	22-7615-10	.047 MFD DISC 50V	R63	63-9921-56	100K OHM 5%			
C62	22-7615-10	.047 MFD DISC 50V	R64	63-9921-56	100K OHM 5%			
C63	22-7615-10	.047 MFD DISC 50V	R65	63-9921-56	100K OHM 5%			
C64	22-7615-10	.047 MFD DISC 50V	R66	63-9921-56	100K OHM 5%			
C65	22-7615-10	.047 MFD DISC 50V	R67	63-9921-56	100K OHM 5%			
C66	22-7615-10	.047 MFD DISC 50V	R68	63-9921-56	100K OHM 5%			
C67	22-7615-10	.047 MFD DISC 50V	R69	63-9921-56	100K OHM 5%			
C68	22-7615-10	.047 MFD DISC 50V	R70	63-9921-56	100K OHM 5%			
C69	22-7615-10	.047 MFD DISC 50V	R71	63-9921-56	100K OHM 5%			
C70	22-7615-10	.047 MFD DISC 50V	R72	63-9921-56	100K OHM 5%			
C71	22-7615-10	.047 MFD DISC 50V	R73	63-9921-56	100K OHM 5%			
C72	22-7615-10	.047 MFD DISC 50V	R74	63-9921-56	100K OHM 5%			
C73	22-7615-10	.047 MFD DISC 50V	R75	63-9921-56	100K OHM 5%			
C74	22-7615-10	.047 MFD DISC 50V	R76	63-9921-56	100K OHM 5%			
C75	22-7615-10	.047 MFD DISC 50V						



**CHASSIS 8WJR57 —  
HASSIS WIRING AND COMPONENTS VIEWED FROM FOIL SIDE**

# CHASSIS 8WJR57

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
C1A		F.M. DETECTOR TRIMMER	C758	22-3412	820 PFD DISC 500V	DX508M	63-9216-30	10 OHM
C1B		F.M. DETECTOR TRIMMER	R1	63-9212-56	220 OHM 5%	R701	63-9222-20	100 OHM
C1C		F.M. ANTENNA TUNING	R2	63-9222-20	100K OHM	R702	63-9212-72	1K OHM
C1E	22-7134	A.M. ANTENNA TRIMMER	R3	63-9212-64	470 OHM 5%	R703	63-7349	8.2 MEG OHM 1/2W
C1F		A.M. OSCILLATOR TUNING	R4	63-9212-78	1.8K OHM 5%	R705	63-9222-20	180K OHM
C1G		A.M. OSCILLATOR TRIMMER	R5	63-9212-82	1.8K OHM 5%	R706	63-9212-56	5.0K OHM
C1H		F.M. ANTENNA TUNING	R6	63-9212-86	120 OHM 5%	R708	63-9212-56	2.0K OHM
C2	22-2396	27 PF DISC 500V	R7	63-9212-36	470K OHM 5%	R707	63-7352	10 MEG OHM
C3	22-2729	.001 MFD DISC 25V	R8	63-9212-36	33 OHM 5%	R708	63-9222-24	2.7 MEG OHM
C6	22-3675	10 PF DISC ±5% 500V	R9	63-9212-36	470K OHM 5%	R709	63-9222-24	150K OHM
C8	22-5761	.47 PF 1000V	R10	63-4142	100 OHM 1/4W 5%	R710	63-9212-72	1K OHM
C9	22-2515	1.5K OHM ±5% 500V	R11	63-9212-36	270 OHM 5%	R711	63-9212-56	22K OHM
C9	22-5878	.24 PF DISC ±5% 500V	R12	63-9212-36	47K OHM 5%	R712	63-9212-24	5.6K OHM
C10	22-2728	.001 MFD DISC 25V	R101	63-9222-10	15K OHM 5%	R713	63-9212-90	5.6K OHM
C11	22-5878	.55 PF DISC ±5% 600V	R102	63-9222-18	82K OHM 5%	R751	63-9222-20	100K OHM
C12	22-6615-10	.004 MFD DISC 25V	R103	63-9222-18	10K OHM 5%	R752	63-9222-26	1K OHM
C13	22-4819	.1 TO 1.5 PF CERAMIC TRIMMER	R104	63-9222-18	1.0K OHM 5%	R753	63-7349	8.2 MEG OHM 1/2W
C14	22-3619	5000 PF ±5% -30% 25V	R105	63-9212-80	2.2K OHM 5%	R754	63-9222-26	180K OHM
C16	22-7272	.001 MFD DISC 50V	R106	63-9212-84	470 OHM 5%	R755	63-8919-190	5.6K OHM
C17	22-7615-10	.047 MFD DISC 50V	R107	63-9212-84	470 OHM 5%	R756	63-9212-56	10 MEG OHM
C18	22-3177	390PF DISC 500V	R201	63-9212-88	800 OHM 5%	R758	63-9222-54	2.7 MEG OHM
C201	22-5660	.27 PF DISC ±2.5 PF 500V	R202	63-9212-88	270 OHM 5%	R759	63-9222-54	150K OHM
C202	22-5483	.0015 MFD DISC 500V	R203	63-9212-64	470 OHM 5%	R760	63-9212-72	1K OHM
C203	22-5487	.47 MFD DISC 3V	R212	63-9212-64	470 OHM 5%	L1	20-3664	FM ANTENNA COIL
C204	22-5487	.56 PF DISC 3V	R213	63-9212-64	470 OHM 5%	L2	20-3665	RF COIL
C205	22-6615-10	.047 MFD DISC 50V	R214	63-9212-68	800 OHM 5%	L3	20-1631	TRAP COIL 10.7 MHZ
C206	22-3791	.47 PF DISC ±5% 500V	R215	63-9212-88	4700 OHM 5%	L4	20-3587	FM OSCILLATOR COIL
C208	22-6615-10	.27 PF DISC ±2.5 PF 500V	R216	63-9212-88	4700 OHM 5%	L101	S-83292-201	AM ANTENNA COIL
C209	22-5482	.027 MFD DISC 50V	R217	63-9212-88	2.2K OHM 5%	L102	100 OHM 1/2W SLEEVE	AM ANTENNA COIL
C210	22-5482	.680 PF DISC 500V	R218	63-9212-88	10K OHM 5%	L103	IN T101	AM OSCILLATOR TRANS. PRI.
C211	22-3770	.56 PF DISC ±2.5 PF 500V	R219	63-9212-88	2.2K OHM 1/2W	L104	IN T101	AM OSCILLATOR TRANS. SEC.
C212	22-7615-10	.047 MFD DISC 50V	R220	63-9212-88	470 OHM 5%	L201	IN T201	1ST IF TRANSFORMER 10.7 MHZ PRI.
C213	22-6225-19	1.8 PF DISC ±2.5 PF 500V	R210	63-9212-92	1K OHM 5%	L202	IN T201	1ST IF TRANSFORMER 10.7 MHZ SEC.
C214	22-5482	.680 PF DISC 500V	R211	63-9212-64	470 OHM 5%	L203	IN T455	1ST IF 455 KHz PRI.
C215	22-5482	.0015 MFD DISC 50V	R212	63-9212-64	470 OHM 5%	L204	IN T455	1ST IF 455 KHz SEC.
C216	22-5482	.0047 MFD DISC 50V	R213	63-9212-88	4700 OHM 5%	L205	IN T203	2ND IF TRANSFORMER 10.7 MHZ PRI.
C217	22-5482	.680 PF DISC 500V	R214	63-9212-88	10K OHM 5%	L206	IN T203	2ND IF TRANSFORMER 10.7 MHZ SEC.
C218	22-3177	.390 PF DISC 500V	R215	63-9212-88	3.3K OHM 5%	L207	IN T204	3RD IF AM 455 KHz
C219	22-3177	.390 PF DISC 500V	R216	63-9212-88	1.0K OHM 5%	L208	IN T205	3RD IF AM 455 KHz SEC.
C220	22-7412-03	.47 MFD ELECTROLYTIC 25V	R217	63-9212-88	3.9K OHM 1/2W	L209	IN T205	3RD IF AM 455 KHz PRI.
C221	22-5482	.027 MFD DISC 50V	R218	63-9212-88	12K OHM 1/2W	L210	IN T206	3RD IF AM 455 KHz SEC.
C222	22-5482	.680 PF DISC 500V	R219	63-9212-88	10K OHM 5%	L211	IN T206	3RD IF AM 455 KHz SEC.
C223	22-5482	.0015 MFD DISC 50V	R220	63-9212-88	2.2K OHM 5%	L212	IN T207	RATIO DETECTOR TRANS. 10.7 MHZ P.R.L.
C224	22-5482	.0047 MFD DISC 50V	R221	63-9212-88	10K OHM 5%	L213	IN T207	RATIO DETECTOR TRANS. 10.7 MHZ TERTIARY
C225	22-7615-10	.047 MFD DISC 50V	R222	63-9212-88	10K OHM 5%	L214	IN T207	RATIO DETECTOR TRANS. 10.7 MHZ SEC.
C226	22-5482	.0015 MFD DISC 50V	R223	63-9212-88	30K OHM 5%	T101	95-3271	AM OSCILLATOR TRANSFORMER
C227	22-7615-10	.047 MFD DISC 50V	R224	63-9212-88	470K OHM 5%	T201	95-2546	FM 1ST TRANSFORMER 10.7 MHz
C228	22-3395	.01 MFD DISC 25V	R225	63-9212-88	330K OHM 1/2W	T202	95-2541	AM 1ST IF 455 KHz
C229	22-7615-10	.047 MFD DISC 50V	R226	63-9212-88	470K OHM 5%	T203	95-2541	FM 2ND IF 455 KHz
C230	22-7615-10	.047 MFD DISC 50V	R227	63-9212-88	10K OHM 5%	T204	95-2548	FM 3RD IF 455 KHz
C231	22-7615-10	.047 MFD DISC 50V	R228	63-9212-88	10K OHM 5%	T205	95-2548	FM 3RD IF TRANSFORMER 10.7 MHz
C232	22-3655	.01 MFD DISC 10V	R229	63-9212-88	10K OHM 5%	T206	95-2545	AM 3RD IF 455 KHz
C301	22-2726	.001 MFD DISC 25V	R301	63-1831	12K OHM 1/2W 10%	T207	95-2545	FM 4RD IF 455 KHz
C302	22-1142-03	.47 MFD ELECTROLYTIC 25V	R302	63-9697-26	500 OHM MUTE CONTROL (ALT 63-9261)	T208	95-3271-01	POWER TRANSFORMER
C304	22-5782	2200 PF POLYSTYRENE ±5% 500V	R303	63-9222-34	390K OHM 5%	SW1	85-1442	BAND SWITCH
C305	22-3728	15 PF DISC 500V	R304	63-1458	390 OHM 2W	SW2	85-1437-01	AFC SWITCH (SLIDE SP-DT) PREFERRED
C306	22-7613-10	.0033 MFD DISC 50V (TO BE USED WITH 221-791-01)	R305	63-9222-34	5.6K OHM ±5%	SW3	85-1456	ALTERNATE SPEAKER SWITCH (DP-3T)
OR			R306	63-9222-34	5.6K OHM ±5%	SW4	85-1456	PUSH-PULL POWER SWITCH
C308	22-5581	.0039 MFD DISC 500V (TO BE USED WITH 221-791-01)	R310	63-4147	120 OHM 1/4W	SW5	85-1515-01	HIGH CUT FILTER
C309	22-5782	.022 MFD DISC 12V	R401	63-9222-48	1.2 MEG OHM 5%	SW6	85-1515-01	HIGH CUT FILTER
C310	22-5782	.0023 MFD DISC 50V	R403	63-9222-36	470K OHM 5%	J1	78-2137-01	STEREO HEADPHONE JACK
C311	22-7613-10	.0023 MFD DISC 50V	R404	63-9224-60	4.7M OHM 10%	CR1	103-47-01	ALC
C312	22-16	.470 PF DISC 500V	R405	63-9222-08	2.7K OHM 5%	CR101	103-1420-01	SILICON DIODE
C313	22-7615-10	.047 MFD DISC 50V	R407	63-9221-02	2.7K OHM 5%	CR201	103-23-01	GERMANIUM DIODE
C314	22-7615-10	.047 MFD DISC 50V	R408	63-9221-96	10K OHM 5%	CR202	103-23-01	GERMANIUM DIODES (MATCHED PAIR)
C315	22-7615-10	.047 MFD DISC 50V	R409	63-10189-03	500 OHM 1/2W GNDNESS CONTROL	CR203	103-23-01	GERMANIUM DIODE
C316	22-3381	.39 PF 25% DISC 500V	R410	63-9221-96	10K OHM 5%	CR204	103-23-01	GERMANIUM DIODE
C401	22-7615-10	.047 MFD DISC 50V	R411	63-9221-96	10K OHM 5%	CR205	103-23-01	GERMANIUM DIODE
C402	22-2939	.680 PF DISC 500V	R412	63-9221-96	10K OHM 5%	CR206	103-23-01	GERMANIUM DIODE
C403	22-7615-10	.047 MFD DISC 50V	R413	63-9221-00	15K OHM 5%	CR401	103-22-01	SILICON DIODE
C404	22-7163	.100 PF ELECTROLYTIC 50V	R414	63-8891-01	250K BALANCE CONTROL (ALT 63-8891-01)	CR451	103-22-01	SILICON DIODE
C405	22-7163-09	.0022 MFD DISC 50V	R415	63-9221-90	5.6K OHM 5%	CR452	103-22-01	SILICON DIODE
C406	22-7163-09	.0022 MFD DISC 50V	R416	63-9221-39	39 OHM	CRX501#1	21-76-78	SILICON RECTIFIER
C407	22-7163-09	.0022 MFD DISC 50V	R417	63-9221-39	5.6K OHM 5%	CRX502#1	21-76-78	SILICON RECTIFIER
C408	22-7202	.039 MFD MYLAR 50V	R418	63-9221-69	6.2 OHM 5% 1/2W	CR503	103-96	MONOLITHIC MULTIPLEX DIODE (ZENER SEE C306)
C409	22-7202	.068 MFD MYLAR 100V	R419	63-9221-69	100 OHM 5%	DS301	100-611	STEREO INDICATOR LIGHT
C410	22-7163-12	.0068 MFD DISC 50V	R420	63-9222-26	150K OHM ±5%	DSX501#1	100-604	FM DIAL LIGHT
C411	22-16	.470 PF DISC 25V	R421	63-9246-19	6.2 OHM 5% 1/2W	DSX503#1	100-633	POINTER LIGHT
C412	22-16	.470 PF DISC 25V	R422	63-9222-23	150K OHM ±5%	DSX504#1	100-604	AM DIAL LIGHT
C413	22-6905	1 MFD MYLAR 10V	R423	63-9222-23	150K OHM ±5%	DSX505#1	100-610	PILOT AND METER LIGHT
C414	22-2939	.680 PF DISC 500V	R424	63-9222-23	150K OHM ±5%	PC	204-642	CIRCUIT BOARD
C415	22-7162-09	.220 MFD ELECTROLYTIC 25V	R425	63-9221-86	220 OHM 5%	FX501#1	138-117-17	.75 AMP SLO-BLOW FUSE
C416	22-2939	.220 MFD ELECTROLYTIC 50V	R426	63-9221-86	4.7 MEG OHM 10%	FX502#1	138-118-20	.2 AMP REGULAB FUSE
C417	22-7162-09	.220 MFD ELECTROLYTIC 50V	R427	63-9221-86	27K OHM 5%	Q1	121-953	F.M. R.F. F.E.T.
C418	22-2939	.220 MFD ELECTROLYTIC 16V	R428	63-9464-76	1500 OHM ±5%	Q2	121-613	F.M. CONVERTER N.P.N.
C419	22-2939	.039 MFD DISC 500V	R429	63-9221-86	120 OHM 5%	Q101	121-735	A.M. CONVERTER N.P.N.
C420	22-7152-06	.33 MFD ELECTROLYTIC 25V	R430	63-9221-82	2.7K OHM 5%	Q201	121-614	A.M. F.M. 1ST I.F. N.P.N.
C421	22-7601	.033 MFD MYLAR 50V	R431	63-9221-82	4.7 MEG OHM 10%	Q202	121-850	A.M. F.M. 2ND I.F. N.P.N.
C422	22-7601	.033 MFD MYLAR 50V	R432	63-9221-82	27K OHM 5%	Q203	121-850	F.M. 3RD I.F. N.P.N.
C423	22-7613-10	.033 MFD DISC 50V	R433	63-9221-82	10K OHM 5%	Q204	121-433	TUNING METER CONTROL N.P.N.
C501	22-4905	.01 MFD DISC 50V	R434	63-9222-00	15K OHM 5%	Q401	121-433	PRE AMPLIFIER N.P.N.
C502	22-4905	.01 MFD DISC 50V	R435	63-9222-00	15K OHM 5%	Q402	121-1005	AUDIO OUTPUT N.P.N.
C503	22-7141-11	.220 MFD ELECTROLYTIC 50V	R436	63-9221-90	5.6K OHM 5%	Q403	121-877	PRE DRIVER N.P.N.
C504	22-7141-11	.047 MFD DISC 50V	R437	63-9221-90	39 OHM	Q404	121-1006	DRIVER N.P.N.
C505	22-7141-11	.047 MFD DISC 50V	R438	63-9221-90	5.6K OHM 5%	Q405	121-927-02	AUDIO OUTPUT N.P.N.
C506	22-7141-11	.047 MFD DISC 50V	R439	63-9221-90	5.6K OHM 5%	Q406	121-926-02	AUDIO OUTPUT P.N.P.
C507	22-7141-11	.047 MFD DISC 50V	R440	63-9221-90	82 OHM 5% 1/2W	Q451	121-433	PRE AMPLIFIER N.P.N.
C508	22-7141-11	.047 MFD DISC 50V	R441	63-9221-90	100 OHM 5% 1/2W	Q452	121-1005	AUDIO OUTPUT P.N.P.
C509	22-7141-11	.047 MFD DISC 50V	R442	63-9221-90	100 OHM 5% 1/2W	Q453	121-477	PRE DRIVER N.P.N.
C510	22-7141-11	.047 MFD DISC 50V	R443	63-9221-90	100 OHM 5% 1/2W	Q454	121-1006	DRIVER N.P.N.
C511	22-7141-11	.047 MFD DISC 50V	R444	63-9221-90	100 OHM 5% 1/2W	Q455	121-1006	AUDIO OUTPUT N.P.N.
C512	22-7141-11	.047 MFD DISC 50V	R445	63-9221-90	100 OHM 5% 1/2W	Q456	121-326-02	AUDIO OUTPUT P.N.P.
C513	22-7141-11	.047 MFD DISC 50V	R446	63-9221-90	100 OHM 5% 1/2W	Q457	121-433	PRE AMPLIFIER N.P.N.
C514	22-7141-11	.047 MFD DISC 50V	R447	63-9221-90	100 OHM 5% 1/2W	Q458	121-1433	PRE AMPLIFIER N.P.N.
C515	22-7141-11	.047 MFD DISC 50V	R448	63-9221-90	100 OHM 5% 1/2W	Q459	121-1433	PRE AMPLIFIER N.P.N.
C516	22-7141-11	.047 MFD DISC 50V	R449	63-9246-46	82 OHM 5% 1/2W	Q460	121-1433	PRE AMPLIFIER N.P.N.
C517	22-7141-11	.047 MFD DISC 50V	R450	63-9246-46	100 OHM 5% 1/2W	Q461	121-433	PRE AMPLIFIER N.P.N.
C518	22-7141-11	.047 MFD DISC 50V	R451	63-9246-46	100 OHM 5% 1/2W	Q462	121-1005</	

## MAGNETIC PREAMP CIRCUIT BOARD DRAWING APPEARS ON PAGE 34

**ASSIS 15WJR29**

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION	
C1A	F.M. ANTENNA TRIMMER	R2	63-9922-20	100K OHM 5% 1/W	AL3 63-10184-20±10% 1/W	R752	63-9921-72	1K OHM 5% 1/W	
C1B	F.M. ANTENNA TUNING	R3	63-9921-12	47K OHM 5% 1/W	AL3 63-10184-12±10% 1/W	R753	63-7949	8.2 MEG OHM 5% 1/2W	
C1C	F.M. RF TRIMMER	R4	63-9921-16	220 OHM 5% 1/W	AL3 63-10183-62±10% 1/W	R754	63-9922-26	10K OHM 5% 1/W	
C1D	F.M. OSCILLATOR TUNING	R5	63-9922-20	100K OHM 5% 1/W	AL3 63-10183-62±10% 1/W	R755	63-9922-30	33K OHM 5% 1/W	
C1E	A.M. ANTENNA TRIMMER	R6	63-9922-20	270K OHM 5% 1/W	AL3 63-10184-30±10% 1/W	R757	63-7952	10 MEG OHM 5% 1/2W	
C1G	A.M. ANTENNA TUNING	R7	63-9921-20	330 OHM 5% 1/W	AL3 63-10183-60±10% 1/W	R758	63-9922-54	2.7 MEG OHM 5% 1/W	
C1H	A.M. RF TRIMMER	R8	63-9921-20	1.8K OHM 5% 1/W	AL3 63-10183-78±10% 1/W	R759	63-9922-54	8.2 MEG OHM 5% 1/W	
C1I	F.M. OSCILLATOR TUNING	R9	63-9921-20	390 OHM 5% 1/W	AL3 63-10184-08±10% 1/W	R760	63-9921-72	1K OHM 5% 1/W	
C1L	.001 MFD DISC 25V	R10	63-9921-20	39 OHM 5% 1/W	AL3 63-10183-36±10% 1/W	CR1	103-47-01	AFC DIODE	
C2	22-2729	.001 MFD DISC 25V	R13	63-9921-20	1.8K OHM 5% 1/W	AL3 63-10184-78±10% 1/W	CR202	103-23-01	GERMANIUM DIODE
C4	22-2715-04	.001 MFD DISC 25V	R14	63-9921-20	1.8K OHM 5% 1/W	AL3 63-10183-64±10% 1/W	CR203	103-23-01	GERMANIUM DIODE
C5	22-3675	10 PF DISC 15K 600V	R15	63-9921-20	470 OHM 5% 1/W	AL3 63-10183-64±10% 1/W	CR204	103-23-01	GERMANIUM DIODE
C6	22-7615-04	4700 PF DISC 50V	R101	63-9922-10	15K OHM 5% 1/W	AL3 63-10184-110±10% 1/W	CR301	103-142	SILICON DIODE
C7	22-3035	12.5K OHM 5% 600V	R102	63-9921-20	2.7K OHM 5% 1/W	AL3 63-10183-62±10% 1/W	CR302	103-23-01	GERMANIUM DIODE
C8	22-2715-04	.001 MFD DISC 25V	R103	63-9921-20	2.2K OHM 5% 1/W	AL3 63-10183-80±10% 1/W	CR303	103-142-01	SILICON DIODE
C9	22-2715-04	.001 MFD DISC 25V	R104	63-9921-20	470 OHM 5% 1/W	AL3 63-10183-64±10% 1/W	CR451	103-145-01	SILICON DIODE
C10	22-2717	390 PF DISC 50V	R105	63-9921-20	100K OHM 5% 1/W	AL3 63-10183-64±10% 1/W	CR452	103-145-01	SILICON DIODE
C11	22-2468	2.2 PF GIMMICK 5% 500V	R106	63-9921-20	3.9K OHM 5% 1/W	AL3 63-10183-62±10% 1/W	CR453	103-145-01	SILICON DIODE
C12	22-2484	2.7 PF DISC 2.5% 11500 500V	R107	63-9921-20	470 OHM 5% 1/W	AL3 63-10183-64±10% 1/W	CR454	103-145-01	SILICON DIODE
C13	22-2715-04	4700 PF DISC 50V	R108	63-9921-20	15 OHM 5% 1/W	AL3 63-10183-23±10% 1/W	CR4601	103-145-01	SILICON DIODE
C14	22-7615-04	.047 MFD DISC 50V	R201	63-9922-10	39K OHM 5% 1/W	AL3 63-10184-10±10% 1/W	CR4602	103-145-01	SILICON DIODE
C15	22-2485	1.7 TO 10 PF CERAMIC TRIMMER	R202	63-9922-10	35K OHM 5% 1/W	AL3 63-10184-10±10% 1/W	CR4604	103-145-01	SILICON DIODE
C16	22-2715-04	.001 MFD DISC 25V	R203	63-9922-10	100K OHM 5% 1/W	AL3 63-10184-20±10% 1/W	CR4605	103-145-01	SILICON DIODE
C17	22-2715-04	4700 PF DISC 50V	R204	63-9922-10	1K OHM 5% 1/W	AL3 63-10183-72±10% 1/W	CR506	103-142-01	SILICON DIODE
C18	22-2715-04	4700 PF DISC 50V	R205	63-9922-10	100K OHM 5% 1/W	AL3 63-10183-84±10% 1/W	CR507	103-142-01	SILICON DIODE
C19	22-7615-04	.001 MFD DISC 50V	R206	63-9922-10	100K OHM 5% 1/W	AL3 63-10183-84±10% 1/W	CR508	103-142-01	SILICON DIODE
C20	22-7615-18	3300 PF DISC 500V	R208	63-9922-10	10K OHM 5% 1/W	AL3 63-10181-66±10% 1/W	CR509	103-142-01	SILICON DIODE
C21	22-7615-10	.047 MFD DISC 50V	R209	63-9922-10	1.5K OHM 5% 1/W	AL3 63-10183-76±10% 1/W	CR510	103-142-01	SILICON DIODE
C22	22-7615-10	.047 MFD DISC 50V	R210	63-9922-10	10K OHM 5% 1/W	AL3 63-10183-96±10% 1/W	CR511	103-142-01	SILICON DIODE
C23	22-7615-10	.047 MFD DISC 50V	R211	63-9922-10	100K OHM 5% 1/W	AL3 63-10183-96±10% 1/W	CR512	103-142-01	SILICON DIODE
C24	22-7615-10	.047 MFD DISC 50V	R212	63-9922-10	470K OHM 25% 1/W	AL3 63-10184-36±10% 1/W	CR513	103-142-01	SILICON DIODE
C25	22-7615-10	2.5K OHM FM METER ADJ	R213	63-10651-02	2.5K OHM FM METER ADJ	CR514	103-142-01	SILICON DIODE	
C26	22-7615-10	2.5K OHM FM METER ADJ	R214	63-9921-20	2.2K OHM 5% 1/W	AL3 63-10183-86±10% 1/W	CR515	103-142-01	SILICON DIODE
C27	22-7615-10	2.5K OHM FM METER ADJ	R215	63-9921-20	100K OHM 5% 1/W	AL3 63-10183-88±10% 1/W	CR516	103-142-01	SILICON DIODE
C28	22-7615-10	2.5K OHM FM METER ADJ	R216	63-9921-20	680 OHM 5% 1/W	AL3 63-10183-68±10% 1/W	CR517	103-142-01	SILICON DIODE
C29	22-7615-10	2.5K OHM FM METER ADJ	R217	63-9922-10	330K OHM 5% 1/W	AL3 63-10184-32±10% 1/W	CR518	103-142-01	SILICON DIODE
C30	22-7615-10	2.5K OHM FM METER ADJ	R218	63-9922-10	470 OHM 5% 1/W	AL3 63-10183-64±10% 1/W	CR519	103-142-01	SILICON DIODE
C31	22-7615-10	2.5K OHM FM METER ADJ	R219	63-9922-10	1.5K OHM 5% 1/W	AL3 63-10183-74±10% 1/W	CR520	103-142-01	SILICON DIODE
C32	22-7615-10	2.5K OHM FM METER ADJ	R220	63-9922-10	27K OHM 5% 1/W	AL3 63-10182-06±10% 1/W	CR521	103-142-01	SILICON DIODE
C33	22-7615-10	2.5K OHM FM METER ADJ	R221	63-9922-10	4.7K OHM 5% 1/W	AL3 63-10183-88±10% 1/W	CR522	103-142-01	SILICON DIODE
C34	22-7615-10	2.5K OHM FM METER ADJ	R222	63-9922-10	15K OHM 5% 1/W	AL3 62-10184-110±10% 1/W	CR523	103-142-01	SILICON DIODE
C35	22-7615-10	2.5K OHM FM METER ADJ	R223	63-9922-10	100K OHM 5% 1/W	AL3 62-10184-20±10% 1/W	CR524	103-142-01	SILICON DIODE
C36	22-7615-10	2.5K OHM FM METER ADJ	R224	63-9922-10	300 OHM 5% 1/W	AL3 62-10183-62±10% 1/W	CR525	103-142-01	SILICON DIODE
C37	22-7615-10	2.5K OHM FM METER ADJ	R225	63-9922-10	47 OHM 10% 1/W	AL3 62-10183-62±10% 1/W	CR526	103-142-01	SILICON DIODE
C38	22-7615-10	2.5K OHM FM METER ADJ	R226	63-9922-10	330K OHM 5% 1/W	AL3 62-10184-32±10% 1/W	CR527	103-142-01	SILICON DIODE
C39	22-7615-10	2.5K OHM FM METER ADJ	R227	63-9922-10	1.5K OHM 5% 1/W	AL3 62-10183-78±10% 1/W	CR528	103-142-01	SILICON DIODE
C40	22-7615-10	2.5K OHM FM METER ADJ	R228	63-9922-10	12K OHM 5% 1/W	AL3 62-10183-98±10% 1/W	CR529	103-142-01	SILICON DIODE
C41	22-7615-10	2.5K OHM FM METER ADJ	R229	63-9922-10	10K OHM 5% 1/W	AL3 62-10183-96±10% 1/W	CR530	103-142-01	SILICON DIODE
C42	22-7615-10	2.5K OHM FM METER ADJ	R230	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-63±10% 1/W	CR531	103-142-01	SILICON DIODE
C43	22-7615-10	2.5K OHM FM METER ADJ	R231	63-9922-10	100K OHM 5% 1/W	AL3 62-10184-10±10% 1/W	CR532	103-142-01	SILICON DIODE
C44	22-7615-10	2.5K OHM FM METER ADJ	R232	63-9922-10	39K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR533	103-142-01	SILICON DIODE
C45	22-7615-10	2.5K OHM FM METER ADJ	R233	63-9922-10	82 OHM 5% 1/W	AL3 62-10184-61±10% 1/W	CR534	103-142-01	SILICON DIODE
C46	22-7615-10	2.5K OHM FM METER ADJ	R234	63-9922-10	1K OHM 5% 1/W	AL3 62-10183-73±10% 1/W	CR535	103-142-01	SILICON DIODE
C47	22-7615-10	2.5K OHM FM METER ADJ	R235	63-9922-10	100K OHM 5% 1/W	AL3 62-10184-10±10% 1/W	CR536	103-142-01	SILICON DIODE
C48	22-7615-10	2.5K OHM FM METER ADJ	R236	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-70±10% 1/W	CR537	103-142-01	SILICON DIODE
C49	22-7615-10	2.5K OHM FM METER ADJ	R237	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR538	103-142-01	SILICON DIODE
C50	22-7615-10	2.5K OHM FM METER ADJ	R238	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR539	103-142-01	SILICON DIODE
C51	22-7615-10	2.5K OHM FM METER ADJ	R239	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR540	103-142-01	SILICON DIODE
C52	22-7615-10	2.5K OHM FM METER ADJ	R240	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR541	103-142-01	SILICON DIODE
C53	22-7615-10	2.5K OHM FM METER ADJ	R241	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR542	103-142-01	SILICON DIODE
C54	22-7615-10	2.5K OHM FM METER ADJ	R242	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR543	103-142-01	SILICON DIODE
C55	22-7615-10	2.5K OHM FM METER ADJ	R243	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR544	103-142-01	SILICON DIODE
C56	22-7615-10	2.5K OHM FM METER ADJ	R244	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR545	103-142-01	SILICON DIODE
C57	22-7615-10	2.5K OHM FM METER ADJ	R245	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR546	103-142-01	SILICON DIODE
C58	22-7615-10	2.5K OHM FM METER ADJ	R246	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR547	103-142-01	SILICON DIODE
C59	22-7615-10	2.5K OHM FM METER ADJ	R247	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR548	103-142-01	SILICON DIODE
C60	22-7615-10	2.5K OHM FM METER ADJ	R248	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR549	103-142-01	SILICON DIODE
C61	22-7615-10	2.5K OHM FM METER ADJ	R249	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR550	103-142-01	SILICON DIODE
C62	22-7615-10	2.5K OHM FM METER ADJ	R250	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR551	103-142-01	SILICON DIODE
C63	22-7615-10	2.5K OHM FM METER ADJ	R251	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR552	103-142-01	SILICON DIODE
C64	22-7615-10	2.5K OHM FM METER ADJ	R252	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR553	103-142-01	SILICON DIODE
C65	22-7615-10	2.5K OHM FM METER ADJ	R253	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR554	103-142-01	SILICON DIODE
C66	22-7615-10	2.5K OHM FM METER ADJ	R254	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR555	103-142-01	SILICON DIODE
C67	22-7615-10	2.5K OHM FM METER ADJ	R255	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR556	103-142-01	SILICON DIODE
C68	22-7615-10	2.5K OHM FM METER ADJ	R256	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR557	103-142-01	SILICON DIODE
C69	22-7615-10	2.5K OHM FM METER ADJ	R257	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR558	103-142-01	SILICON DIODE
C70	22-7615-10	2.5K OHM FM METER ADJ	R258	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR559	103-142-01	SILICON DIODE
C71	22-7615-10	2.5K OHM FM METER ADJ	R259	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR560	103-142-01	SILICON DIODE
C72	22-7615-10	2.5K OHM FM METER ADJ	R260	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR561	103-142-01	SILICON DIODE
C73	22-7615-10	2.5K OHM FM METER ADJ	R261	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR562	103-142-01	SILICON DIODE
C74	22-7615-10	2.5K OHM FM METER ADJ	R262	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR563	103-142-01	SILICON DIODE
C75	22-7615-10	2.5K OHM FM METER ADJ	R263	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR564	103-142-01	SILICON DIODE
C76	22-7615-10	2.5K OHM FM METER ADJ	R264	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR565	103-142-01	SILICON DIODE
C77	22-7615-10	2.5K OHM FM METER ADJ	R265	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR566	103-142-01	SILICON DIODE
C78	22-7615-10	2.5K OHM FM METER ADJ	R266	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR567	103-142-01	SILICON DIODE
C79	22-7615-10	2.5K OHM FM METER ADJ	R267	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88±10% 1/W	CR568	103-142-01	SILICON DIODE
C80	22-7615-10	2.5K OHM FM METER ADJ	R268	63-9922-10	100K OHM 5% 1/W	AL3 62-10183-88			

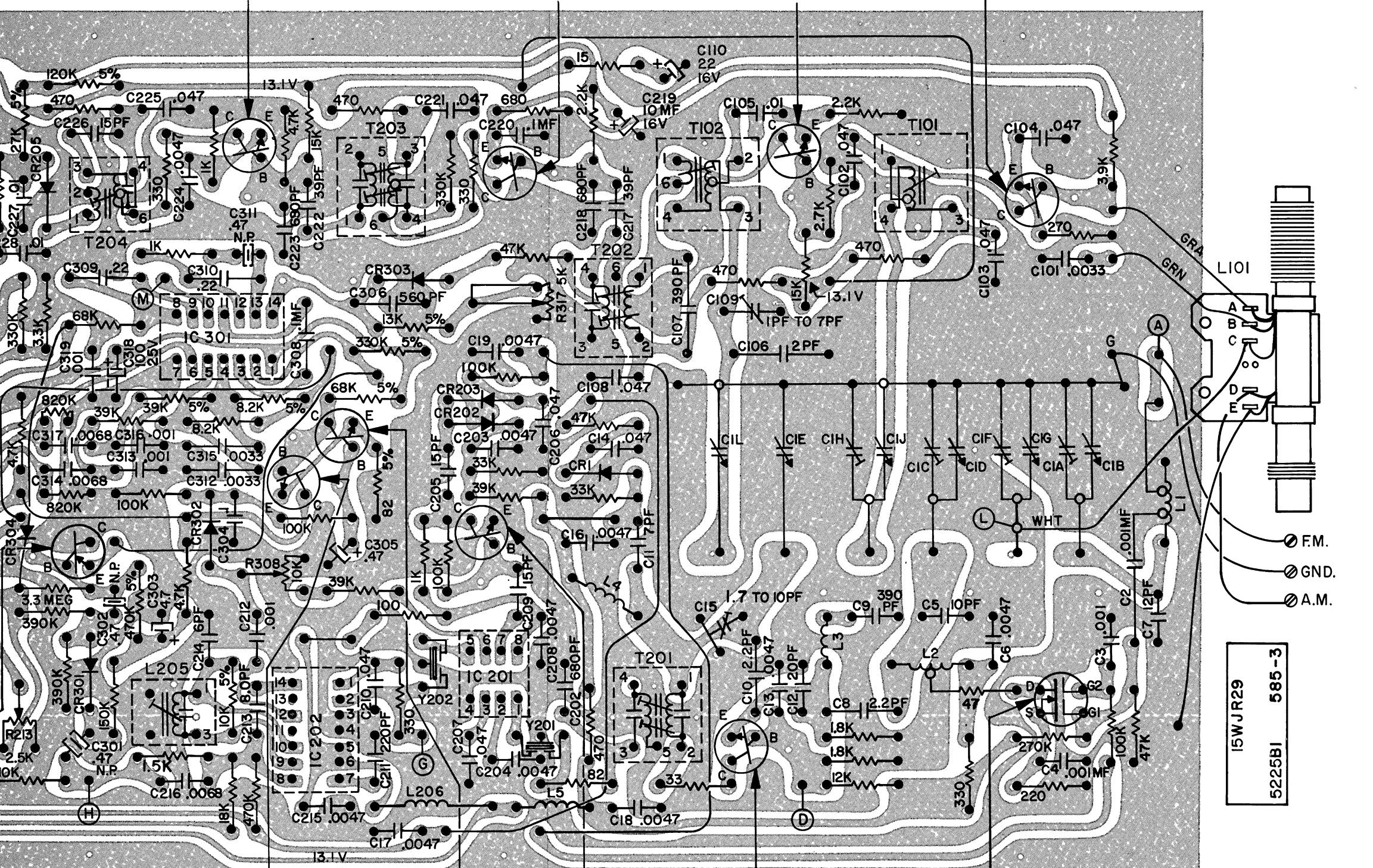
-5.1 V  
-12.6 V

**Q203  
121-95  
E=2.5 V  
B=3.2 V  
C=11.7 V**

Q202  
121-950  
E=1.4 V  
B=2.1 V  
C=12.0 V

Q102  
121-735  
E = 1.5 V  
B = 2.0 V  
C = 12.8 V

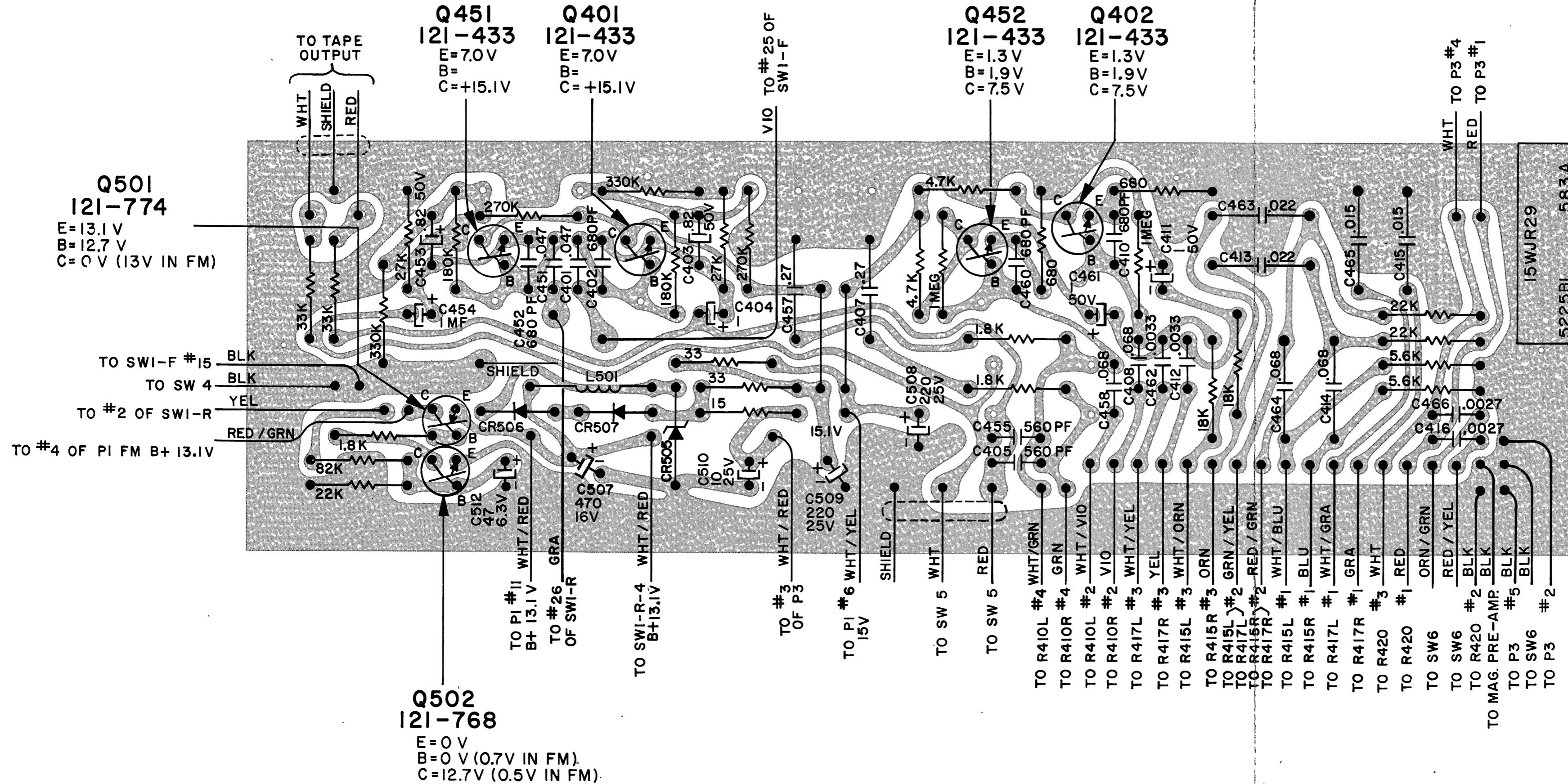
Q101  
21-850  
E = 0.5 V  
B = 1.2 V  
C = 12.0 V



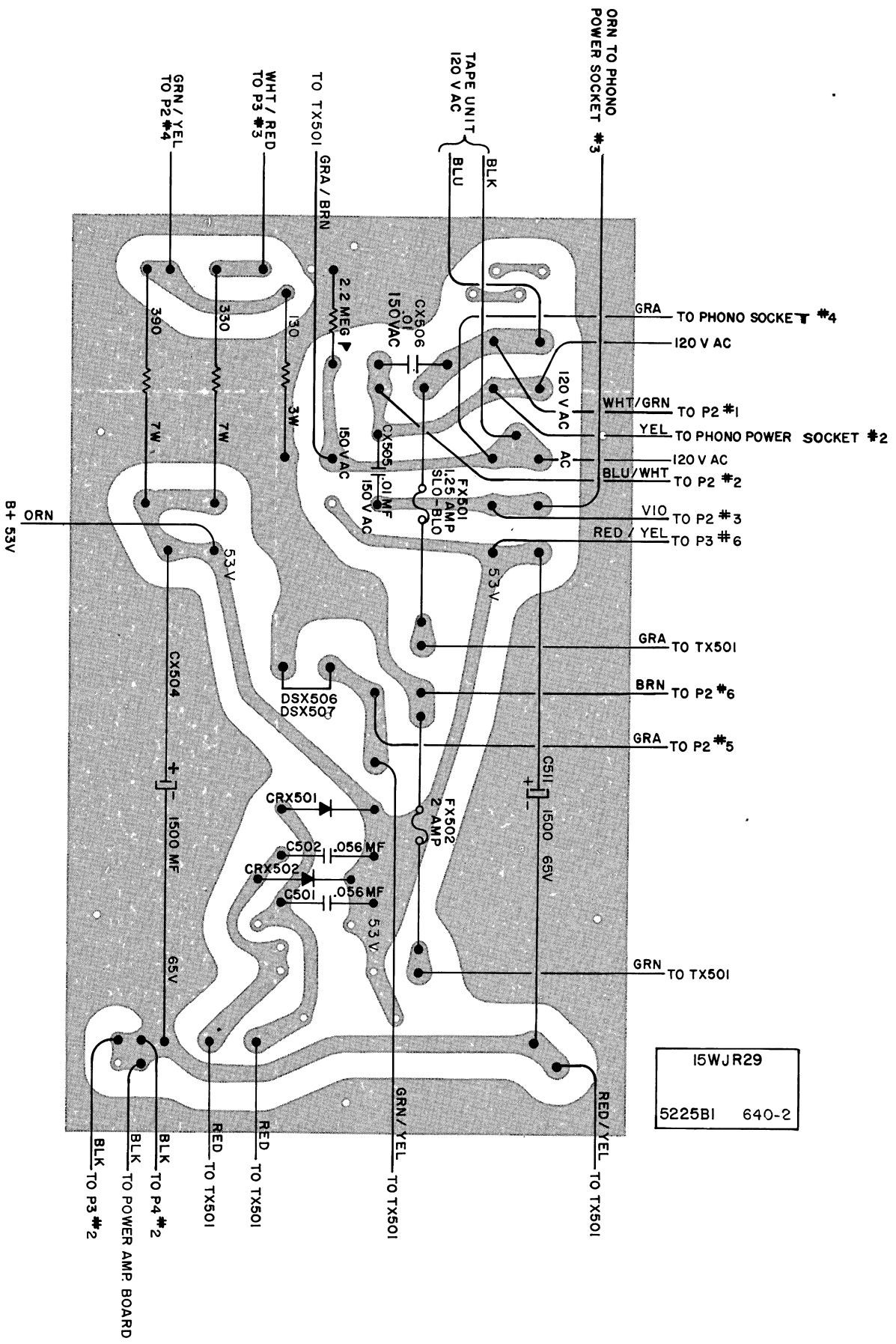
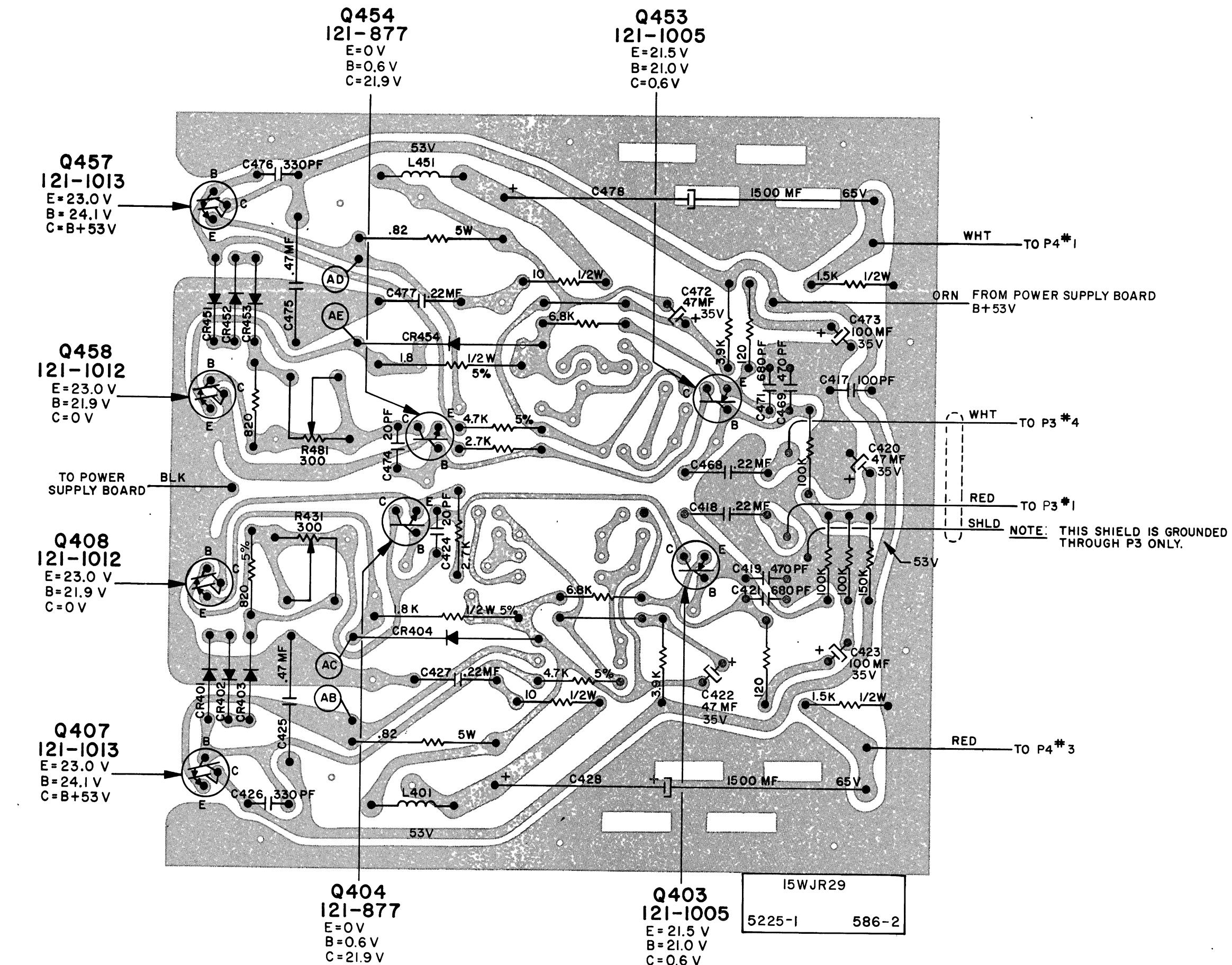
21-953 EARLY PRODUCTION)

## MAGNETIC PREAMP CIRCUIT BOARD DRAWING APPEARS ON PAGE 34

**CHASSIS 15WJR29 — CHASSIS WIRING  
AND COMPONENTS VIEWED FROM FOIL SIDE — RF/IF/MPX**

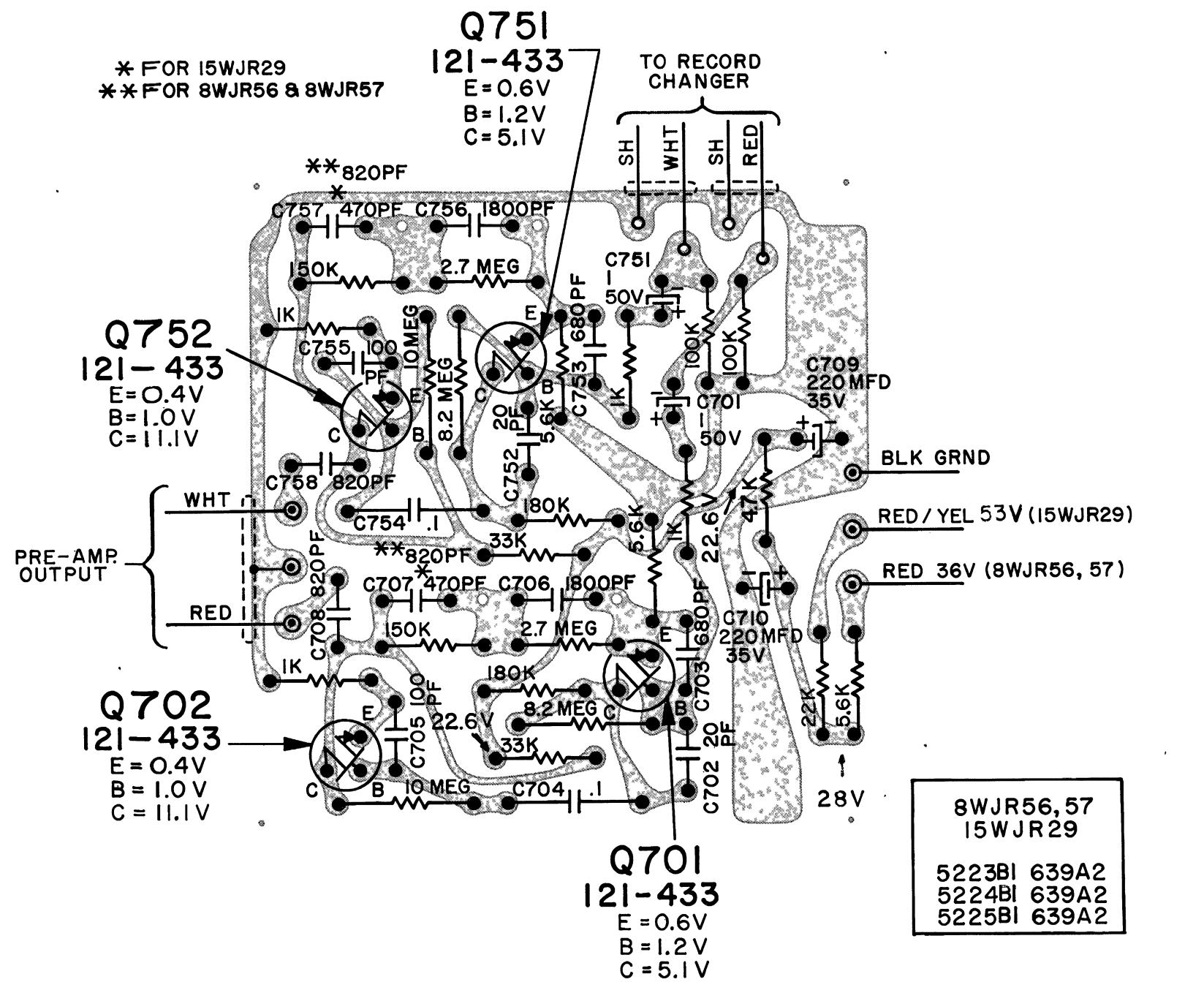


CHASSIS 15WJR29 – CHASSIS WIRING  
AND COMPONENTS VIEWED FROM FOIL SIDE – PREAMPLIFIER



CHASSIS 15WJR29 – CHASSIS WIRING  
AND COMPONENTS VIEWED FROM FOIL SIDE – POWER AMPLIFIER

CHASSIS 15WJR29 – CHASSIS WIRING  
AND COMPONENTS VIEWED FROM FOIL SIDE – POWER SUPPLY



CHASSIS 8WJR56, 8WJR57, AND 15WJR29  
CHASSIS WIRING AND COMPONENTS VIEWED FROM FOIL SIDE  
MAGNETIC PHONO PREAMP